

# To Share Is To Keep: Politicians, Property Rights and Firm Ownership in Post-Apartheid South Africa

*Rafael J. Santos\**

## **Abstract**

Institutions that fail to protect citizens against expropriation from the government hinder investment and economic development. How do economic agents counteract these institutions? I propose a theory of companies establishing connections with politicians as a mechanism to protect property rights and increase investment. I build a model in which  $N$  companies face a sector-level threat of expropriation. As a response to that threat, the owner of each company non-cooperatively decides what fraction of her shares to transfer to a politician who is pivotal in the expropriation decisions of the government. The model predicts that an exogenous shift in the share transfers of company  $i$  increases that company's investment by reducing the sector-level risk of expropriation. This, in turn, generates a sector-level positive externality which indirectly increases investment of other companies in company's  $i$  sector.

The predictions of the model are examined using new panel data for South Africa between 1971 and 2003 for 123 listed companies. After Apartheid, a leftist party, which historically promoted the nationalization of the mines and banks of the country, came to power and increased the political insecurity of white-owned firms. At the same time, the first instances of Black Economic Empowerment

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\*I would like to thank James Robinson and Daron Acemoglu for pointing me to the South African case. I benefited from discussions with Naomi Lamoreaux, Timothy Guinnane, Mark Rosenzweig and Christopher Udry and from comments of seminar participants at the Yale Economic Development Lunch. I am indebted to Anastasiya Lisovskaya, Jaqueline Oliveira and Camilo Dominguez who corrected mistakes in a previous version of this draft. I am also grateful to the people in South Africa who have helped me with this research: Jenny Cargill, Dave Thayser and Barbara Keys (both from Ernst & Young), Cornelius De Klerk (from McGregor BFA) and Hermann Giliomee.

occurred, whereby white firms transferred shares to black people at preferential terms. I examine the effects of BEE transactions on investment to test the model that I developed above. After showing that most BEE transactions went to companies directed by black politicians, I use an interaction between a post-Apartheid dummy and the size of the second largest shareholder as an instrument for BEE transactions. This instrument satisfies the exclusion restriction in the economic model outlined above and it is relevant because the owner of the company weighs the property rights benefit of transferring part of her shares to politicians with the cost of ceding power to the second shareholder; the larger the latter, the less the shares transfers to politicians. I first confirm that the size of the second largest shareholder has a large negative effect on BEE transactions. I then show that an increase in BEE transactions both at the company level and at the sector level increases long-term investments and that these effects are only relevant for companies in the mining and financial sectors. Finally, I show that firms which engaged in more BEE transactions up to 2003 are more likely to have ANC Ministers and Members of Parliament as shareholders in 2006, but again this relationship is only relevant for firms in the mining and financial sector.

JEL CODES: G38, N27, O12, O16. Program: Political Economy. Sub-area: Political Economy.

## 1 Introduction

Empirical work shows that connections between companies and politicians are widespread. Faccio [2006], in a sample of 20,202 firms and 47 countries, shows that politically connected firms —companies listed on a public exchange, in which the head of government or a member of parliament is a main shareholder or top officer of the company— are present in 35 countries and represent 7.72% of world stock market capitalization. Political connections, she finds, are more common in developing countries.

Why are these connections observed? The revealed preference argument suggests that political connections are valuable for the economic agents who have them. Several empirical studies confirm this. In Ghana, farmers with traditional political connections leave their land fallow longer, invest more and obtain higher profits (Goldstein and Udry [2008]). In Indonesia, the value of firms connected to president Suharto was an increasing function of

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the health of the dictator (Fisman [2001]). In Pakistan, through government banks, firms with politicians on the board of directors borrow 45% more and have 50% higher default rates than firms with no politicians (Khwaja and Mian [2005]). In Nazi Germany, companies which bet on Hitler —i.e., companies that contributed economically to Hitler or Goering before 1933— outperformed the stock market by 6.5% between January and March of 1933 (Ferguson and Voth [2008]).

The value of political connections might arise from the particular goods and transfers that politicians can deliver. A politically connected firm might receive preferential access to information or to government goods. In this paper, I focus on the fact that politicians can also provide better property rights. In places where firms face a high risk of expropriation, economic agents with political connections might end up with better property rights because politicians are crucial in the expropriation decisions of the government and, therefore, can provide protection from expropriation. In China, where private firms usually experience political discrimination, firms which owners become members of the Communist Party, trust more in the legal system and have higher profitability. These effects are amplified in provinces with less developed markets and weaker legal protection (Li et al. [2008]). In South Africa, after Apartheid, white-owned firms, with economic power but no political capital, transferred equity to left-oriented black politicians, with political power and the potential to provide protection, but with no money.

In places with weak institutions, the main menace to property rights is the government itself and buying off a politician in order to avoid vertical expropriation (expropriation by the government) is a naive move unless the fortune of the politician depends on the success of the principal. In the absence of a mechanism to tie the future of the politician to the future economic success of the company, a politician who is willing to refrain from expropriation in exchange of a pecuniary transfer will end up with his pockets empty. Similar commitment problems were faced by the Stuarts before the Glorious Revolution (North and Weingast [1989]) and by princes during the commercial revolution of the middle ages (Greif et al. [1994]). In England, no merchant was willing to lend money to the Crown since the Crown was powerful enough to renege on its promises. Similarly, in medieval Europe, no merchant guild was willing to trade on a prince's territory since promises of secure property rights were easily broken after trade networks were established. In both of these cases, the solution to the ruler's commitment problem was to create a balance of powers and countervailing forces to

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check the Monarch. These countervailing forces were promoted by economic agents with interests in trade and commerce once they acquired a sufficient amount of economic power (Acemoglu et al. [2005]). In a modern democracy, the arrival to power of a strong party with objectives that differ from those of economic agents can replicate these commitment problems. Economic agents (say, a private mining company) might try to buy off politicians to obtain protection. However, politicians face a conflict of interests between the objectives of the party (say, to nationalize the mining sector) and the objectives of the economic agents who target them and they cannot commit to policy. Repeated games and the threat of punishment using the long arm of the future come to mind; yet, the conditions under which repeated games can solve such commitment problems are very stringent (North [1990]). For instance, it is virtually impossible to have perfect information about the actions of politicians and, even if information can be inferred from outcomes, there might exist a less costly alternative.

The main argument of this paper is that a firm can use share transfers—interpreted broadly as shares sold at preferential terms—as a mechanism to obtain better property rights from powerful politicians who, after acquiring an economic interest in the firm, lose incentives to expropriate it. For the owners of the firm, it is optimal to transfer part of the firm to powerful politicians since, if enclosed in a weak institutional environment, they obtain better property rights which enhance incentives and stimulate investment (see for example, Acemoglu and Johnson [2005] or Besley and Ghatak [2009])<sup>1</sup>. Exploring the mechanisms through which property rights are improved is important for development because secure property rights are a fundamental cause of economic development (Acemoglu et al. [2001]). However, secure property rights are not easy to implement and, setting aside radical reforms, a given set of institutions is highly persistent. Hence, how property rights evolve is a crucial question for economic development, and this paper illustrates one mechanism through which property rights are secured by economically powerful agents who lack political power. When South African businessmen give a stake in the economy to politicians, they endogenously generate a better set of property rights for themselves but also for other companies in their same sector (externalities become important). For example, in 2005, when De Beers sold 26% of its South African business (part of it to politician Manne Dipico), the company probably reduced the risk of

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<sup>1</sup> The same argument applies for directorships

nationalization for the mining sector as a whole.

The use of share transfers as a mechanism to solve the commitment problem of politicians highlights an important role for the stock market in developing countries. The stock market allows for the redistribution of future wealth in such a way that the interests of different actors are aligned towards the defense of private property. Put differently, the stock market facilitates the creation of countervailing forces. Jha [2008] shows that this was the case during England's movement towards parliamentary supremacy. In XVIIth century England, the members of parliament with newly acquired shares in Overseas Companies were more likely to oppose the king and to support institutional reform. Likewise, in post-Apartheid South Africa, black politicians with newly acquired shares in the mining and banking sectors were less likely to carry out one of the long-standing policies of the African National Congress (ANC), that of nationalizing the banks and mines of the country.

I focus on the South African case for several reasons. First, South Africa has a long history of using government leverage to support racial groups and their firms. Political connections were important in South Africa at least since the first half of the XXth century and the rise of Afrikaner Nationalism but these preexisting connections lost relevance once a black government arrived to power. At the same time, black businessmen were almost non-existent during Apartheid. Thus, South Africa is a unique case of study; after 1994 we observe political connections being built almost from zero and observations of businessmen turning into politicians are rare. Second, the left-leaning black politicians elected to power in 1994 were a significant threat to the property rights of South-African white-owned companies, the same companies which oppressed them for decades. Third, since the end of Apartheid, white-owned corporations have transferred shares to black individuals, in particular to black politicians. Importantly, this is not illegal and fit squarely into the framework of Black Economic Empowerment, an affirmative action policy designed to redress the inequalities of Apartheid. The objective of this policy is to promote the transfer of ownership to black people but the policy does not penalize the transfer of ownership to black politicians (former president Thabo Mbeki referred to the politicians benefiting from this policy as *A Patriotic Black Bourgeoisie*). The fact that the transfer of shares to politicians is legal allows us to observe the engineering of political connections.

In this paper I build a model in which companies face a sector-level threat of expropriation. To counteract that threat, the owner of each company non-

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cooperatively transfers a fraction of her own shares to a pivotal politician. The main result of the model is that equity transfers reduces the sector-level probability of expropriation and increases the transferring company's investment and the investment of other companies in the same sector. In the model, the largest shareholder (the owner) weighs the property rights benefit of transferring shares against the cost of ceding power to the second largest shareholder. This argument relies heavily on the corporate governance literature which demonstrates —both theoretically and empirically— that the largest shareholder of a company obtains considerable private benefits when she is in a controlling position (Grossman and Hart [1980], Demsetz and Lehn [1985], Barclay and Holderness [1989], Dyck and Zingales [2002], Holderness [2003]). I build upon and complement this literature by highlighting the risk that a large secondary shareholder presents for the private benefits of the owner. As a result, the larger the shareholding percentage of the secondary shareholder, the less shares the owner transfers to politicians. Most important, inside the model, the size of the second largest shareholder is shown to be a valid instrument, which helps me to estimate the causal effect of share transfers on investment. I use a new panel data of South African companies between 1971 and 2003 and a Post-Apartheid Dummy interacted with a measure of the size of the secondary shareholder as an instrument for Black Economic Empowerment transactions. I show that the recipients of these transactions were mainly politicians (many of them were active in politics during Apartheid and during the first years of democracy). Then, I confirm the main prediction of the model, that investment is increasing in the share transfers to politicians at both the company and sector levels. Externalities are particularly important. Beta-coefficients suggest that the sector-level effect is 1.5 times the company-level effect, which is itself very large, implying that one standard deviation increase in BEE transactions at the company-level entails an increase of half a standard deviation in post-Apartheid long-term investments (or 2.2 times average post-Apartheid long-term investments). I also show that these effects are only relevant for firms in the mining or financial sectors, the two sectors most vulnerable to expropriation in South Africa. In addition, I show that an exogenous increase in share transfers increase profits with no evidence of positive externalities or differential effects across sectors. Finally, I show that more BEE transactions increase the probability of being connected with an ANC politician, who is politically-active in 2006, but, once again, this effect is only relevant for firms in the mining or financial sectors.

This paper is not about corruption and development (for this see for example Shleifer and Vishny [1993] or Banerjee [1997]). The share transfers to politicians in South Africa are legal, they are approved and promoted by the government and existing regulation. The purported interventions of politicians to provide protection might not be strictly legal, but the focus here is on the fact that, by investing in powerful politicians, firms reduce the risk of expropriation and, therefore, invest more, providing simultaneously a positive externality for other companies in the South African economy. Through the stock market, these share transfers might generate a more stable set of policies and a shift from radical redistribution to negotiated, gradual and future redistribution.

The organization of the paper is as follows: In part II, after this introduction, the economics model is proposed. The objective of the model is to flesh-out, in the simplest possible way, the main hypothesis of the paper and to provide a plausible source of exogenous variation for share transfers to politicians. Part III builds on previous research by South African academics and summarizes the history of Black Economic Empowerment, focusing on the share transfers to black people. In this part I also provide some case study evidence, which illustrates the mechanism suggested by the model. In part IV, I present the empirical model. Part V describes the new datasets that are built for this research. I show the results in part VI, while part VII concludes.

## 2 A Model of Endogenous Property Rights and Share Transfers

In this section I develop a model where each of  $N$  owners of  $N$  companies facing a sector-level threat of expropriation transfers a fraction of her shares to politicians to protect the property rights of her company. The shares are transferred to a politician who is pivotal in the expropriation decisions of a party in power. The incumbent party is expected to remain in power and cannot commit to policy. In general one can think of shares being sold to politicians at a discount over the market price. Here I focus on the implied shares of the firm that politicians receive at zero market price (the pure transfer part of the transaction). In South Africa, for example, black entrepreneurs usually borrow money from the vendor of the shares and are

supposed to repay the shares with future dividends. For there to be any money left for the politician, some part of the shares has to be given away at zero price.

The power of the party to expropriate is non deterministic. By this I mean that how much rents the party can extract from expropriating a sector is not known by the owners of the firms ex-ante because it depends on election results or on the internal composition of the party. Here it is important to clarify what I mean by expropriation. I conceptualize expropriation as the ruling party taking away ownership of a set of companies (and its assets) from its original owners. The ruling party chooses members close to the party to run the companies and redistributes the profits to itself or to the treasury. The pivotal politician receives a fraction of the profits which I set equal to one for simplicity. Importantly, by choosing to expropriate the sector, the party avoids to pay the previously incurred setup costs and sunk investments of the companies.

## 2.1 Timing of the Game

There are  $N$  identical companies ( $i = 1, 2, \dots, N$ ) belonging to sector  $S$  and a pivotal politician. The politician is pivotal in the decision of the party to expropriate the sector of the firms or not. This is a modeling choice to highlight the fact that, in South Africa, expropriation seems to be a sector level threat but I do recognize that firms may face an idiosyncratic risk of expropriation.

It is assumed common knowledge that the political party is going to win the elections but there is uncertainty about how powerful the party will be (i.e. by what margin the party will win). All players have utility functions which are increasing in consumption. The utility of the politician could depend on his own consumption but also on the consumption of his supporters. The timing of the game is as follows,

1. The owner of each company simultaneously transfers  $s_{pi}$  shares of future profits to the politician and decides how much to invest. The transfer of shares to politicians is a Cournot Game between the  $N$  firms.
2. The party is elected. The power of the party,  $\eta_p$ , or how much rents the party can extract from an expropriated sector, is revealed. The pivotal politician decides whether to expropriate the sector or not.



3. Production is realized. If no expropriation takes place, dividends are paid.

## 2.2 Expropriation Decision

At the end of the game, the politician decides to expropriate the sector of the firms or not. The objective of the politician is to maximize income which is given by,

$$I_p = \chi \sum_{j \in S} \eta_p \cdot z_s \cdot AF(k_j) + (1 - \chi) \sum_{j \in S} s_{pi} \cdot v \cdot AF(k_j) \quad [1]$$

Where  $\chi$  is an indicator variable which takes the value of one if the party decides to expropriate the firm.  $\eta_p$  is how much of the production of the sector the party can keep for itself (“the power of the party”) and is observed when the politician moves but not before. We assume that  $\eta_p$  is a random variable with support over the interval  $(0, 1)$ , with cumulative probability function  $P(\eta_p)$  and density  $p(\eta_p)$  with  $p'(\eta_p) \leq 0$ <sup>2</sup>.  $z_s$  represents *sector expropriability* or how vulnerable to expropriation a sector is (for example how mobile assets are in a given sector) and  $v \geq 1$  represents the technological advantage of a firm run by its original owners.  $A$  is the productivity of the firm.  $F(k_j)$  is a neoclassical production function satisfying  $F'(k_j) > 0$ ,  $F''(k_j) \leq 0$  and the Inada conditions  $\lim_{k \rightarrow 0} F'(k) = +\infty$  and  $\lim_{k \rightarrow \infty} F'(k) = 0$ .  $s_{pi}$  is the shareholding that the owner transfers to the politician.

The party chooses not to expropriate the sector and  $\chi = 0$  if ,

$$\sum_{j \in S} s_{pj} \cdot v \cdot AF(k_j) \geq \sum_{j \in S} \eta_p \cdot z \cdot AF(k_j)$$

or, equivalently,

$$\frac{\sum_{j \in S} s_{pj} \cdot v \cdot AF(k_j)}{\sum_{j \in S} z \cdot AF(k_j)} > \eta_p$$

Thus, the ex-ante probability of survival is given by,

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<sup>2</sup> Examples of probability functions that satisfy these properties are: Exponential, Uniform, Pareto, Gamma, Weibull, etc.

$$P_{survival} = P\left(\frac{\sum_{j \in s} s_{pj} \cdot v \cdot F(k_j)}{\sum_{j \in s} z \cdot F(k_j)}\right) [2]$$

### 2.3 Share Transfers and Investment

The objective of the owner (i.e. the largest shareholder) of company  $i$  is to choose  $s_{pi}$  and  $k_i$  to maximize his dividends,

$$E[D_i] = (s_I - s_{pi}) \cdot P\left(\frac{\sum_{j \in s} s_{pj} \cdot v_j \cdot F(k_j)}{\sum_{j \in s} z \cdot F(k_j)}\right) \cdot v_j \cdot AF(k_i) + (1 + r) \cdot s_I \cdot (\bar{k} - k_i) [3]$$

where  $E[D_i]$  are expected dividends,  $s_I \in (0, 1]$  is the shareholding of the owner of the firm,  $r$  is the interest rate and  $\bar{k}$  are initial funds available for investment. In equation [3] depreciation of capital is assumed to be complete. The owner of the firm faces two trade-offs: i. To redistribute dividends to shareholders today or to invest to make capital productive tomorrow and ii. To give part of his shares to the party or to face a higher probability of expropriation. Equation [3] is strictly concave provided its second order cross-derivatives are small enough.

Additionally, the owner of the firm is subject to a stay-in-control constraint such that,

$$s_I - s_p > s_{II}$$

where  $s_{II}$  is the shareholding of the second largest shareholder of the firm and  $s_{II} \in [0, s_I)$ . This means that the owner of the firms does not want to cede control to the secondary shareholder because there are some rents which are only available to the owner. These rents are known as “private benefits of control” in the corporate governance literature. They can be pecuniary benefits such as inflated salaries or non-pecuniary benefits such as the direct utility benefit of having the last word in a company’s decision making process. In a theoretical model, Grossman and Hart [1980] show that the existence of these rents is necessary in order to avoid free riding by smaller shareholders on the control of management exerted by a block

shareholder. Dyck and Zingales [2002] estimate, that, on average, corporate control is worth 14% of the equity value of a firm.

## 2.4 Main results

The model is solved by backwards induction. The optimal response of the politician is taken into account by the owners of the companies in the first stage of the game through the probability of survival. Hence, in the first stage, the owner of company  $i$  solves the following constrained maximization problem,

$$L = (s_I - s_{pi}) \cdot P\left(\frac{\sum s_{pj} \cdot v \cdot F(k_j)}{\sum z \cdot F(k_j)}\right) \cdot v \cdot AF(k_i) + (1 + r) \cdot s_I \cdot (\bar{k} - k_i)$$

$$-\lambda_1(s_{pi} - s_I) + \lambda_2(s_p) - \lambda_3(s_{II} - s_I + s_{pi}) + \lambda_4(k_i)$$

Where I assume that  $\bar{k}$  is large enough so that credit constraints do not bind.

## Interior equilibrium

The interior equilibrium is easy to characterize. The two first order conditions are,

$$[s_p] : (s_I - s_p^*) \cdot p\left(\frac{s_p^* v}{z}\right) \cdot \frac{v}{nz} - P\left(\frac{s_p^* v}{z}\right) = 0 \quad [4]$$

$$[k] : (s_I - s_p^*) \cdot P\left(\frac{s_p^* v}{z}\right) \cdot v \cdot AF'(k^*) - (s_I)(1 + r) = 0 \quad [5]$$

Equation [4] and [5] are the result of solving the Cournot Game played by the  $N$  companies in the transfer of shares to politicians. Equation [4] states that the owner of the firm equates the marginal benefit of transferring shares to the politician to the marginal cost of reducing her own shareholding. Equation [5] states that the marginal product of capital is equal to the opportunity cost of investment funds weighed by the expected “De Facto Shareholding” of the owner. Equations [4] and [5] illustrate in a very simple way the main problem of trying to estimate the effect of an increase in  $s_p^*$  on  $k^*$ . Any exogenous variable that shifts  $s_p^*$  will also directly affect  $k^*$ . Notice that, from equation [5] and because of positive externalities, at the optimal level of share transfers,

$$\frac{\partial k}{\partial s_p} = [(s_I - s_p) \cdot p(\frac{s_p v}{z}) \frac{v}{z} - P(\frac{s_p v}{z})] \cdot v \cdot AF'(k) > 0$$

and thus a policy which exogenously increase  $s_p$ , as BEE, would increase investment. Also, exogenously increasing the share transfers of other firms should increase investment because the probability of expropriation decreases while the shareholding of the owner of the company remains constant.

## Corner Solutions

Suppose first that the stay-in-control constraint is slack. Then  $k$  cannot be equal to zero unless  $s_p$  is equal to zero because of the Inada conditions. Hence one probable equilibrium is  $s_p = 0$  ( $P_{survival} = 0$ ) and  $k = 0$ . The firms shuts down. Another alternative is voluntary expropriation where  $s_p = s_I$  and  $k = 0$ . However, given the stay-in-control constraint, this would imply  $s_{II} < 0$  and is not a feasible equilibrium.

Suppose now that the stay-in-control constraint is binding ( $s_I - s_p^* < s_{II}$ ). Then,

$$\tilde{s}_p = s_I - s_{II}$$

Where  $\tilde{s}_p$  denotes the share transfer when the stay-in-control constraint binds. This implies that [5] becomes,

$$[k] : \tilde{k} = F'^{-1}\left(\frac{(s_I)(1+r)}{v \cdot A(s_I - s_p) \cdot P(\frac{s_p v}{z})}\right) [6]$$

and since  $F'^{-1}$  is increasing,  $P$  concave and  $\tilde{s}_p < s_p^*$  we have that,

$$\frac{d\tilde{k}}{ds_{II}} = \frac{d\tilde{k}}{d\tilde{s}_p} \cdot \frac{d\tilde{s}_p}{ds_{II}} < 0$$

Increasing the secondary shareholding, decreases share transfers to politicians and, through this channel, reduces investment.

## 2.5 Testable predictions

The model above suggests two predictions to bring to the data:

1. Investment is increasing in  $s_p$  if  $s_p$  is exogenously shifted by policy. Also, if stay-in-control constraints are binding, firms with larger secondary shareholders transfer less shares to the politician and invest less.
2. There are externalities at the sector level. If the share transfer of firm  $j$  in sector  $S$  is increased exogenously, the investment of firm  $i$  in sector  $S$  increases.

This model also advances the empirical work by suggesting a valid instrument for the share transfers to politicians,  $S_{II}$ , or the shareholding of the largest shareholder. In reality,  $S_{II}$  might limit share transfers when  $S_{II}$  is high enough so that there is some power to lose and a real threat to that power.

### 3 Black Economic Empowerment

There is not a single definition of Black Economic Empowerment (BEE). Roughly, BEE might be defined as an affirmative action framework to redress the inequalities of Apartheid. However, the central feature of BEE, the transfer of equity from white-owned companies to black people, has persisted over time. This paper focuses on this specific aspect of Black Economic Empowerment.

BEE started in 1994 but the government did not develop a clear set of regulations to implement it until 2003/2004. BEE was promoted more by government rhetoric than by actual intervention. During the nineties, the government was ambiguous about the meaning of BEE and ownership transactions were supposed to arise naturally. They did. With some exceptions, BEE was not (and still is not) a legal requirement but over time, especially after 2003, regulation has been developed and BEE has become an effective constraint for most firms operating in South Africa (Cargill [2010]). Today BEE means more than equity transfers but the core of the policy remains the transfer of white equity to black people (Cargill [2010], Tangri and Southall [2008]).

### 3.1 Precedents

In South Africa, the idea of promoting an entrepreneurial class based on racial lines is not new. In 1948, when the National Party arrived to power, it used the control of the State to promote Afrikaner entrepreneurs by directing official businesses to Afrikaner banks and by allocating State contracts to Afrikaners (Iheduru [2004]). One of the firms which emerged through the Afrikaner affirmative action policy, Sanlam, is today one of South Africa's biggest companies. English entrepreneurs found ways to deal with Afrikaners' economic discrimination. In 1964, in an effort to counter Afrikaner antipathy and to buy them away from the De Beers diamonds monopoly, Angloamerican's Harry Oppenheimer sold a big share of his gold interests in General Mining to the Boer firm Fedmyin, a Sanlam subsidiary. Some authors make a parallel between this transaction and the sale of Angloamerican business, Johnnic, to black people in 1996 (see for example Cargill [2010]). However the General Mining transaction was sold at fair market price and to Afrikaner entrepreneurs who had the required human capital (Giliomee [2008]). Afrikaners have not suffered prohibitions on assets accumulation or Bantu laws.

Academics also compare Black Economic Empowerment to the Malaysian Bumiputera policy. In the 1970's the Malaysian government passed a law mandating that, by 1990, 30% of corporate equity should be held by indigenous Malays (that is, not by Chinese or Indian Malays). In the Malaysian case, as in the South African case, the focus has been on corruption and Crony Capitalism. The general view is that a big part of the Bumiputera shares were captured by politically connected individuals ("A New Kind of Inequality", *The Economist*, June 3, 2010).

In South Africa, after the Soweto riots of 1976, white business developed a series of initiatives to deradicalize the black majority by promoting a black middle class. The most notorious of these initiatives, the Urban Foundation, aimed to,

[...] encourage and assist as a catalyst the transformation of South Africa's urban black communities into stable, essentially middle class societies subscribing to the values of a free enterprise society and having a vested interest in their own survival (Anton Rupert, quoted in Butler [2009], PP.8 ).

By the same time, some white businessmen (in particular, Christo Nel from

Angloamerican) illegally contacted black leaders who were in prison or in exile (Tangri and Southall [2008], Butler [2009]) and met with trade union activists such as Cyril Ramaphosa (today one of Africa's top millionaires). Similarly, in the mid-eighties, Thabo Mbeki, president of South Africa from 1999 to 2008, established strong relationships with both white and black capital (Cargill [2010]). These black politicians were heavily influenced by socialism (they were supported by the Soviet Union) and they had a clear stance in favor of nationalization and state intervention . The Freedom Charter of 1955, for example, states that:

The people shall share in the country's wealth [...] The mineral wealth beneath the soil, the Banks and monopoly industry shall be transferred to the ownership of the people as as whole. (ANC Freedom Charter, 1955).

Why did white firms contact left-wing politicians as soon as in the 1980's? One hypothesis could be that white firms anticipated a shift to black power in the short term. However this is at odds with history. During most of the 1980's, the unbanning of the ANC and the end of Apartheid was not in the short term horizon of the majority of black politicians and white firms (Cargill [2010], Osborne (2010, February 2)). In 1988, for example, in one of the meetings between UDF leaders and Christo Nell, Nell encouraged white participants "to work through a scenario in which, by 2050, there would be a black president" (Butler, PP.12 ) A more plausible hypothesis is that white firms wanted to temper struggling activists or that white corporations wanted to negotiate a compromise to dismount international sanctions.

### 3.2 The Laissez-Faire period of BEE (1994-2003)

*"Nationalization of the mines, banks and monopoly industry is the policy of the ANC, and the change or modification of our views in this regard is inconceivable." -Mandela after his release from prison in 1990.*

*"A critical part of that project, to realize the prescription in our Constitution, to create a non-racial society, is the deracialisation of the ownership of productive property in our country [...] Ours is a capitalist society. It is therefore inevitable that, in part*

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*- and I repeat, in part - we must address this goal of deracialisation within the context of the property relations characteristic of a capitalist economy.” -Thabo Mbeki, 1999.*

The first black entrepreneurs emerging from the Urban Foundation were perceived as traitors and errand boys by the ANC (Iheduru [2004]). In 1990, Mandela was invited to The Exchanges for lunch and trade stopped completely (Butler [2009], PP. 14). Mandela and the African National Congress were synonyms of nationalization. The ANC emerged as a resistance left-wing party allied with the South African Communist Party and with the trade unions federation COSATU. Anecdotal evidence suggests that until 1992 Mandela still supported nationalization (Ress (2011, February 8)). After that, perhaps because of the experience of communist countries or probably because of the intervention of white businesses, Mandela and the ANC drifted away from nationalization to Black Economic Empowerment.

Some argue that the Freedom Charter contemplated BEE. However, the first concrete reference to Black Economic Empowerment in an ANC record seems to appear in the Ready to Govern Policy Document of 1992 where programs to democratize the economy are proposed. Two of these programs are the “deracialisation of the management of both public and private sector” and the “extension of equity ownership to all sections of the SA population to have a stake in the economy and the power to influence economic decisions” (Edigheji [2000], PP. 9). The Reconstruction and Development Program, with which the ANC ran for the 1994 elections, also contemplated BEE as one of its policies. In section 4.4.6.3 of the RDP it is said that “A central objective of the RDP is to deracialise business ownership and control completely, through focused policies of black economic empowerment.” (African National Congress (1994)). Trade unions were more defiant,

Up to now black economic empowerment has meant giving an opportunity to blacks to sell apples on city pavements or to open spaza shops in the townships [...] The black trade union movement intends to be a major player in the process of restructuring the economy, which among other things will have to ensure that blacks collectively control large amounts of capital [...] If this control is not given over now, nationalization of the major financial institutions and banks is as inevitable as is the emergence of a post-apartheid state itself. (Geoff Schreiner of Numsa, quoted in Innes (1992) PP. 118; also quoted in Iheduru [2004]).



The RDP was an interventionist and redistributionist program and also a program which aimed to transfer a *majority* of white businesses to blacks *groups* rather than to black individuals (Ponte et al. [2007], Tangri and Southall [2008]). However, in 1996, the ANC shifted towards a market friendly policy and also towards a gradual and voluntary transformation of ownership (Tangri and Southall). Even if the ANC was promoting BEE, the government was ambivalent about its meaning and, in practice, regulation to enforce it was almost non-existent. BEE evolved gradually and as a result of negotiations between the emerging black elite and white firms.

In this context, the first instances of BEE were initiated by white owned firms. The first transactions did empower groups but also prominent politicians. On May 13, 1993, Sanlam sold 10% of its stake in METLIFE to METHOLD, a black consortium led by Dr. Ntatho Motlana, close friend and physician of Mandela, secretary of the ANC Youth League during Apartheid. English firms acted similarly. Angloamerican sold the industrial and media group Johnnic to a group of 23 partners. One of the partners was Dr. Ntatho Motlana, who acquired a stake through NAIL, a company chaired by Cyril Ramaphosa. Among the other partners, 15 were trade unions (*Gqubule [2006]*, *Cargill [2010]*; “Black can be rich”, *The Economist*, March 13, 1993).

South Africans refer to BEE share transfers as financial witchcraft or financial smoke and mirrors. The reason is that the typical BEE transaction is usually a highly leveraged share acquisition (often completely debt financed) which is supposed to be repaid with future dividends. A black entrepreneur or a black consortia finds a vendor (a white owned company) and a financing institution. The financing institution (sometimes the same vendor) provides the money, the black investor acquires the economic interests and the shares are kept in a *special purpose vehicle* (SPV). The SPV means that the lender keeps the shares until the black investor pays the debt. However the black investor is not liable: First, if the black investor fails to repay, he is not accountable, the vendor is; second, if the black investor crashes another of his business, no third party can make a claim on the shares in the SPV (*Cargill [2010]*).

These share transfers are usually transacted at a deep discount over the market price. This lower price might be a result of credit constraints, a persistent feature of Apartheid and its prohibition on asset accumulation by blacks, or a result of the willingness of white firms to sell cheap to well connected politicians. Theoretically, the discount is also necessary: given

that the market price of stock is the present value of future dividends, if firms were to sell equity at the market price, black entrepreneurs would have nothing left after repaying their debt. This is consistent with the model in section 2 where I follow a very simple partial equilibrium approach and I take as given that (part of) the shares are transferred to politicians at zero price.

With the Asian crisis of 1997/1998 the first wave of BEE transactions unfolded. The emergent black business class criticized BEE as a process driven by white companies and Mandela conceded that government had felt short in the enactment of regulation. Complaints of elite enrichment heated the debate. In 1999, a BEE commission promoted by the black business constituency was launched (Beall et al. [2005]). Black business representatives, under the Chairmanship of Cyril Ramaphosa, were to evaluate the results of BEE and to provide recommendations for its future direction.

### 3.3 From BEE to BB-BEE (2004-2010)

*“As part of our continuing struggle to wipe out the legacy of racism, we must work to ensure that there emerges a black bourgeoisie, whose presence within our economy and society will be part of the process of the deracialisation of the economy and society. Accordingly, indeed, the government must come to the aid of those among the black people who might require such aid in order to become entrepreneurs.”* -Thabo Mbeki, 1999.

*“When you look at the black super-rich they are not entrepreneurs, they get their money from being the political voice of you which for white owned big business”* Moloetsti Mbeki, Thabo Mbeki’s brother.

The final report of the Black Economic Empowerment commission was released in July 2000. The report called for more government intervention and for the imposition of BEE on white firms. According to some authors (Ponte et al. [2007], Cargill [2010]) the BEEcom had two objectives, to continue the process of capital accumulation by black entrepreneurs and to increase the control of the ANC over white firms. In 2002, the government enacted legislation to accommodate part of the report’s suggestions. The legislation was a compromise between the objectives of emerging black businessmen and established white firms. The Broad Based Economic empowerment bill was introduced to parliament in 2003, a parliament where, according to Southall

[2008], 40% of the representatives are directors of companies. The bill was approved and the result was a more broad based economic empowerment policy, with more reliance on the government to promote empowerment but without legal sanctions in the event of non-compliance.

BEE became broader in scope because the government added new components besides equity ownership to its affirmative action policy and because the transfer of shares to groups was (partly) promoted. With the enactment of the BEE Codes of Good Practice in 2004, the government opted for a score-card approach to evaluate firms in seven dimensions of empowerment: (i) equity ownership by black people, (ii) managerial positions occupied by black people, (iii) black labor hired, (iv) expenditures in skills development, (v) preferential procurement from black firms, (vi) assistance in the development of black firms and (vii) a residual component which is determined by the firm or sector. The objective of the score-card is to guide firms towards their empowerment objectives. Each firm receives a total score (over 100) that is the sum of the different scores in each of the seven components. According to the total score, firms receive preferential treatment when doing business with the government and when supplying private firms which want to increase their procurement credentials.

One of the main innovations in 2003 was the introduction of sector level empowerment charters. These charters set moving targets of empowerment at the sector level. Some of these charters were initiated by white owned firms in order to avoid having a charter imposed on them by the government (Southall [2008]). These initial charters took place in the sectors where government leverage is more important and also where expropriation is commonly observed. For example, "in November 2000, six oil companies, Shell Oil, Sasol Oil, British Petroleum and Caltex oil, all signed 'The Charter for the South African Petroleum and Liquid Fuels Industry on Empowering historically Disadvantaged South Africans (HDSAs) in the Petroleum and Liquid Fuels Industry' establishing 25% ownership of the sector by 2014" (Iheduru [2004]). Another example is the mining sector charter. This charter followed a leaked government draft of the mining charter which proposed 51% ownership by black people of the South African mineral resources. The news caused the Johannesburg stock exchange to plummet and the government to reconsider. Mining companies took their chance and cooperated with the government to sign, in October 9th 2002, a charter establishing 26% ownership by black people in 2014. The two mentioned charters are exceptional because they became legally enforceable with the Mineral and Petroleum Resource Act

that gave mineral rights ownership back to the State in October 2002 (effective in May 2004). Under this act, old order rights (that is, the pre-existing rights of the mining companies) had to be converted into new order rights in 2004 and the renewal was conditional on the empowerment credentials of the firms. Firms needed 15% equity ownership by blacks to convert their rights and they need 26% to retain these rights in 2014. Firms in these sectors had to comply. In 2005 De Beers sold 26% of its South African business. The former provincial premier of the Northern Cape, Manne Dipico, received 9% of the shares involved in the De Beers transaction.

For private firms in other sectors of the South African Economy there are no direct penalties for non-compliance with BEE. However, the government is supposed to promote empowerment goals by using its purchasing power (government contracts and procurement) and by strategically using government provided goods such as quotas or licenses. Some of these policies were already in place during the nineties but they became part of a comprehensive strategy in 2003. According to Cargill [2010], even if most of BEE is not mandatory and even if BEE is not imposed on firms, it is an effective constraint for all firms operating in South Africa.

After 2003, BEE transactions have indeed become more broad based but the new dimensions of empowerment have not overcome in importance equity ownership since the latter continues to be the main instrument used by firms to obtain their empowerment credentials. What might be happening is that equity transfers are increasingly being targeted to a broad base of black investors rather than to individuals. For example in 2003, Sasol 10% empowerment deal represented the first large scale BEE transaction where only broad base empowerment groups were included (Cargill [2010]). Nevertheless, as during the nineties, the same political names appear repeatedly in the main transactions (Tangri and Southall [2008], Herbst [2005]). These individuals, the new black elite, are mockingly referred in the media as the usual suspects, BEE-llionaires, wanna-BEES or WaBenzis (the latter term referring to their preferences for luxury cars, i.e., Mercedes Benz). Some of the *usual suspects* were former prisoners in Robben Island. Two examples are: (i) Mzi Khumalo of Capital Alliance who was the ANC treasurer and who, by reselling quickly his first equity acquisition, induced firms to establish lock-in provisions by which black investors cannot resell their shares for 10 years and (ii) Tokyo Sexwale of Mvelaphanda Holdings who was premier of Gauteng in 1994 (Ponte et al. [2007]). Other prominent figures are Cyril Ramaphosa of the Shanduja Group who was the ANC former general sec-

retary and ; Saki Macozoma of Standard Bank, member of Parliament and a close ally of Mbeki; and Patrice Motsepe of African Rainbow who is not a politician but whose sisters, Bridgette Radebe and Tsepiso Ramaphosa, are married respectively to Enterprises Minister Jeff Radebe and to Cyril Ramaphosa. For example, in 2004, Cyril Ramaphosa and Saki Macozoma obtained 40% of a \$750 million dollar empowerment deal by Standard Bank and Liberty group, without providing any cash. (Tangri and Southall [2008]).

To summarize, during the second half of the last decade, companies' incentives to engage in BEE deals were modified. The benefits of transferring shares to blacks went beyond political protection to include the access to government provided goods. Within sectors companies were drawn to cooperate in order to advance their own charters. However many transactions are still directed to individuals and shares are still sold at a discount over the market price. Some policy measures generated persistence in these two aspects of BEE. One of the reasons why BEE transactions are still directed to individuals is that one of the BEEcom suggestions was that only part of the score in the ownership component could be fulfilled by broad based transactions (!) The government accepted the suggestion and included the provision in the codes. In other words, companies have to transfer shares to black individuals (and their companies) -and not only to broad based groups- in order to obtain all the points in the equity ownership component. One of the reasons why BEE transactions are still sold at a discount over the market price is that the Net Equity Value concept, introduced in 2003, encourages firms to provide softer terms to BEE entrepreneurs (Cargill [2010]). According to the Net Equity Value principle, only the equity that is not matched by any debt increases the equity ownership score but repaying the debt is harder when the price of the shares is higher.

As a final remark, it is important to note that even if share transfers have been taking place since the end of Apartheid, it is unusual that these transactions transfer control. The Companies Act prescribes that a single shareholder with 25% plus one of the vote can intervene with executive decisions but rarely a BEE transaction transfers this amount of rights to a single entity. It comes as no surprise that the actual president of South Africa, Jacob Zuma, who has himself benefited from BEE, recently agreed that the consequence of BEE is a few individuals benefiting a lot while leaving the white companies in white control ("A New Kind of Inequality", *The Economist*, June 3, 2010).

### 3.4 The Mechanism at work

*“Let black people become a minority in their economy. Any other government would have gone the other way in its own country - it would have demanded everything”*-Tokyo Sexwale, quoted in Cargill [2010], p. 61. Tokyo Sexwale is a former Robben islander, Premier of Gauteng in 1994 and worth 142 million dollars today (Southall [2008]). His fellow politicians have asked for the nationalization of his wealth (Cargill).

In this section I provide some examples which are consistent with the mechanism illustrated in the model. I first argue that the risk of expropriation is greater than zero in South Africa and then I present some examples of how the transfer of shares to politicians works in this context.

That the risk of expropriation was high in South Africa at the end of Apartheid might not require further explanation. As Kobrin (1984) points out, broad scope nationalization usually takes place after systemic social change. During the transition to democracy, left-oriented black politicians were in charge of governing white individuals and their firms, the same individuals and firms which oppressed them for decades. But expropriation is still a latent risk in South Africa. The ANC is politically dominant, and even if private property is protected by the Constitution, until the last election in 2009, the ANC controlled more than 66% of the parliament, a percentage which allows the party to unilaterally rewrite the constitution. Also, the two allies of the ANC, the South African Communist Party and the trade unions federation COSATU, have insistently tried to shift policy to the left. For example, in 2010, the Youth League leader, Julius Malema, called for the nationalization of the mines and banks of South Africa, a proposition firmly rejected by president Zuma. Malema retook his proposition in 2011:

“The youth league president Julius Malema said last month that [...] banks should be nationalized to run nationalized mines.”  
(The Wall street Journal, July 1, 2011).

Malema was under ANC disciplinary hearing and ultimately expelled from the ANC in part because of his stance on nationalization.

The latent risk of expropriation in South Africa is also revealed by the public declarations of white owned companies. The president of the South African Petroleum Association, a white business group, makes this point

clear: “To avoid following Zimbabwe down the slippery slope to economic ruin, all South Africans and Business people in particular, must take black economic empowerment seriously” (Iheduru [2004] PP9). Similarly, in 2004, the chief executive of Anglo American provoked president Mbeki when he declared that “political risk in South Africa was actually starting to improve, although it was not yet eliminated” (Herbst [2005]). Finally, it should be kept in mind the importance of mining and mineral resources in South Africa, a sector where capital is highly immobile and expropriation is very frequent.

The mechanism which I have in mind is one where the owner of a company, under a sector-level threat of expropriation, transfer shares to the relevant politicians of an incumbent party to safeguard the property rights of the company. The politicians which can decide whether to expropriate the sector or not, receive the shares and lose incentives to expropriate the sector. Under that interpretation, the regaining of the ownership of mining and mineral rights by the government in 2002 is that the ANC sought to be in a position where it could easily threaten the pre-existing holders of mining rights. That threat can become effective if companies do not comply with BEE but also if they do not transfer part of their companies to the relevant politicians.

Something similar to what happened in mining also happened in the fishing industry. Deep-sea trawl hake fishery is dominated by Irving and Johnson and Sea Harvest. Until the early 2000s, both companies, among others, traditionally benefited from annual access rights. Irving and Johnson and Sea Harvest controlled between them 75% of the total allowable catch quota. Under the government of National Unity, a dutch minister was appointed to the Department of Environmental Affairs and Tourism (DEAT) which had the responsibility to reform ownership in the sector. The minister, Dawid Jacobus de Villiers, was ready to negotiate a shift from annual access rights to individually held quotas own in perpetuity and tradable as assets. However, a political shock, the disintegration of the government of National Unity in 1998, changed the head of the DEAT. Pallo Jordan, a populist politician in favor of redistribution, became the new minister. The response of both Irving and Johnson and Sea Harvest was to engage in BEE deals with political partners. In 1998, 20% of Irving and Johnson was transferred to BEE companies. In the same year, 10.8% of Sea Harvest was sold to the BEE company Brimstone, controlled by the former ANC provincial MEC for economic development Chris Nissen (Ponte and van Sittert [2007]).

One more example comes from the cellular industry. In 1993, the congress for a Democratic South Africa was debating the award of two network licenses

to VODACOM and MTN. The Apartheid government conceded the licenses to the two companies, ignoring the objections of both COSATU and the ANC. The media quoted Cyril Ramaphosa threatening that, in the future, an ANC government would cancel both licenses. Cyril Ramaphosa denies the story but, after that, MTN sold 30% of its business to Black Shareholders and Vodacom sold 5% (Gqubule [2006]). Some of the buyers of these shares were the new members of parliament and former unionists Johnny Copelyn and Marcel Golding, managing the investment trusts of their unions, and Dr. Ntato Motlana (Cargill [2010]).

## 4. Empirical Model

We want to estimate the effect BEE transactions on investment. We could use OLS and estimate the following equation,

$$k_{i,t} = \alpha_0 \cdot s_{i,t} + \alpha_1 \cdot d_{t \geq 1994} \cdot s_{i,t} + x'_{i,t} \alpha_2 + x'_{i,t} d_{t \geq 1994} \cdot \alpha_3 + \delta_t + \delta_i + u_{i,t} \quad [8]$$

Where  $k_{i,t}$  is investment of firm  $i$  at time  $t$ .  $s_{i,t}$  are BEE share transactions,  $d_{t \geq 1994}$  is a post-Apartheid dummy and  $x_{i,t}$  is a vector of control variables which includes the relevant variables according to our theoretical model: the shareholding of the biggest shareholder ( $s_I$ ), a measure of sector expropriability ( $z_s$ ) and a measure of how powerful the incumbent party is ( $\eta_p$ ).  $v$  is unobservable and part of the error term, the power of the party is absorbed by time dummies, denoted by  $\delta_t$ .  $\delta_i$  are company fixed effect and  $u_{i,t}$  is an error term which allows for observations of company  $i$  to be arbitrary correlated over time. Since the transfer of shares from white firms to black people started in 1994,  $\alpha_0$  is equal to zero and to estimate equation [8] above is equivalent to estimate equation [9] below.

$$k_{i,t} = \alpha_1 \cdot s_{i,t} + x'_{i,t} \alpha_2 + x'_{i,t} d_{t \geq 1994} \cdot \alpha_3 + \delta_i + \delta_t + u_{i,t} \quad [9]$$

Estimating [9] by OLS is problematic and generates inconsistent parameter estimates because, as illustrated by the model,  $s_{i,t}$  is endogenous. To identify the parameters of equation [9] we follow an instrumental variables approach where the instrument for  $s_{i,t}$  is an interaction between a post-Apartheid dummy and a measure of the size of the second shareholder.



The equations to estimate are,

$$k_{i,t} = \beta \cdot s_{i,t} + x'_{i,t} \eta_0 + x'_{i,t} d_{t \geq 1994} \cdot \eta_1 + \delta_t + \delta_i + v_{i,t} \quad [10]$$

$$s_{i,t} = \gamma \cdot d_{t \geq 1994} \cdot S_{II} + x'_{i,t} \rho_0 + x'_{i,t} d_{t \geq 1994} \cdot \rho_1 + \delta_t + \delta_i + \varepsilon_{i,t} \quad [11]$$

Our main parameter of interest is  $\beta$ . There are at least two reasons to believe that the OLS estimate of this parameter is biased downwards. First, companies which are more productive when managed by its original owners (companies with higher  $v$ ) transfer less shares to politicians and at the same time, because they are more productive, invest more. Second, even if we model the threat of expropriation as a sector level risk, it is probable that a firm-level time-varying unobservable risk makes the company invest less and at the same time transfer more shares to politicians.

The model above implies that  $\hat{\gamma} < 0$ . The Stay-in-Control constraint applies for the sale of shares from the owner of the firm to any other agent, black or white. However, given the model, the sale of shares at fair market price and to agents who cannot provide protection should not have an effect on investment. This would be equivalent to the owner receiving the monetary equivalent of the fraction of the company being sold. One might also be concerned that, when companies give shares to politicians, they issue new equity so that they dilute the shareholding of all shareholders. If this was the case we should expect  $\hat{\gamma}$  to be equal to 0. The empirical model above also implies that  $d_{t \geq 1994} \cdot S_{II}$  is uncorrelated with  $v_{i,t}$ . The empirical concern however is that, after Apartheid, the secondary shareholding of a company in 1993 affects investments through other channels different than the transfer of shares to black. We discuss about this possibility in section 6.

## 5 Data

I collected new data from different sources to proceed with this research. The main source of the dependent variables is McGregor BFA ([www.mcgregorbfa.com](http://www.mcgregorbfa.com)), a South African provider of financial data. The dependent variables that I take from there come from the financial statements of listed companies. These data are retrospective in the sense that historical data are available

but only for companies listed in 2010. To implement the proposed empirical strategy I further restrict the data to those companies which existed before 1994. This gives us a sample of 123 continuously listed white-owned firms. The sample selection bias arising from having a panel of continuously listed firms is discussed below. The variables that come from this source are Long-term Investments, After Tax Profits, Total Sales and the Taxation Rate (results using the latter two variables are presented in Appendix B). The three former variables are deflated using a producer price index from Statistics South Africa ([www.statssa.gov.za](http://www.statssa.gov.za)) and expressed in billion rands of 2000. The Taxation Rate is total taxes divided by Profits Before Taxes. In sum, from the financial statements of listed companies I create a panel data spanning the years 1971 to 2010. I restrict the analysis to the 1971-2003 period because of the changes in policy taking place after 2003 (see section 4).

To construct the main independent variable I first identify any Black Economic Empowerment Transaction taking place since 1994. The company recording these data is Ernst and Young South Africa in its Mergers and Acquisitions Survey ([www.ey.com/ZA](http://www.ey.com/ZA)). Ernst and Young collects this data annually using the Stock Exchange News and the Financial Press and verifies the information with the advisors of the transactions. Ernst and Young survey of transactions records transactions that result in a change in shareholding. Transactions include merger of related business, acquisition and disposals of businesses and investments, management buy-outs, reverse takeovers, formation of joint ventures and partnerships, strategic alliances, share buybacks, unbundling and other group reconstruction that involves the acquisition or disposal of assets or investments. For each transaction I have information on the seller, the buyer, the assets being traded and the type of the transaction. Additionally, I have information on whether the transaction falls under the category Black Economic Empowerment. The value of transactions is reported but only for a subset of BEE deals (value is reported for 68% of the deals). Aside from this data, Ernst and Young South Africa publishes a written description of the main empowerment transactions taking place each year. I combine both the quantitative and qualitative information to assess whether a firm in the sample is behind these BEE transactions. I focus on two types of transactions: the sale of shares of a company or the sale of shares of one of the company's subsidiaries to black people (an example of the latter is Angloamerican selling Johnnic in 1994). To know which is the parent firm of a subsidiary in year  $t$  I refer to the periodical "McGregor's

Who Owns Whom in South Africa” for the year  $t - 1$ . Once I have this information I create the main independent variable: the cumulative number of BEE transactions of firm  $i$  up to time  $t$ .<sup>3</sup> For each firm  $i$ , I also create the sector average cumulative number of BEE transactions at time  $t$ , where the average excludes company  $i$ . I consider six major sectors: financial (24 firms), mining (21 firms), manufacturing (58 firms), transportation (3 firms), construction (7 firms) and retail (10 firms).

I build two measures of sector expropriability ( $z_s$ ). For the first measure, I collect data on the number of expropriated firms in the world by year and three digits SIC sector. I build on previous work by Kobrin [1984] for the period 1960-1979, by Minor [1994] for the period 1980-1992 and by Hajzler [2010] for the period 1993-2006. These data focus on expropriation acts in 79 developing countries of foreign owned companies categorized in thirteen different SIC sectors. Six of these sectors are in our sample and correspond to the six major sectors mentioned in the previous paragraph. An expropriation act is defined as “the involuntary divestment of assets of any number of direct investment firms, within a given three-digit industry and in a given year” (Hajzler [2010], PP. 5). In the empirical work I use the cumulative number of expropriated firms by sector as a control variable which measures how risky the activities of a sector are. This is the first measure of sector expropriability, *World Sector Expropriability*. A histogram of these data in 1994 is presented in figure 1. The histogram shows how -in 1994- the financial and mining sectors (including petroleum) are the two riskiest sectors in terms of the historical number of expropriated firms. Figure 2 shows the evolution of the number of world expropriated firms over time during the 1960-2006 period. The second measure of sector expropriability is simply a dummy which takes the value of one if the company is in the mining or financial sectors. This measure seems more relevant for South Africa where the mining and financial sectors have historically represented the main targets of nationalization.

I also use the periodicals “McGregor’s Who Owns Whom in South Africa” to collect information on the shareholding of the five largest shareholders in 1993; to measure total assets, after tax profits and market capitalization for all listed firms in 1993/1994 (including those companies which delist at some point in the future); and to construct a delisting and a delisting-and-liquidation panel from 1993 to 1999. This would help me to sign the bias

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<sup>3</sup> The correlation between the number of transactions and the real value of transactions is 0.5435.

arising from having a panel of continuously listed firms.

Finally, I look at the disclosures of interests of members of Parliament and members of the executive branch using the fact that, in South Africa, since 2004, politicians are required by law to disclose their financial interests. For any member of the ANC in the executive or in the parliament I record these interests at one point in time, the year 2006. I take the disclosures of interest from the Information Portal on Corruption and Governance in Africa ([www.ipocafrika.org](http://www.ipocafrika.org)) and I then count how many of these politicians are connected to companies in the sample, where being connected means having ordinary shares in these companies.

Sample means and descriptive statistics of some of the variables described in this section are presented in table 1. I present average and standard deviations for the whole sample before and after Apartheid and for companies with low secondary shareholding in 1993 (Low S2) and with high secondary shareholding in 1993 (High S2). High secondary shareholding is a dummy equal to one if the shareholding of the secondary shareholder is in the top quartile of the cross-sectional distribution in 1993. The first thing to notice from this table is that firms with small secondary shareholders engage in more BEE transactions. At the same time, firms with small secondary shareholders seem to invest more and to be more profitable before and after Apartheid, with the difference increasing after 1994. Part of these differences might be attributed to firms with larger majority shareholders being larger in size (Demsetz and Lehn [1985]). All my regressions below, besides time effects and controls for the majority shareholding, include firm level fixed effects to take this into account. In figure 5, I show how the long-term investments time series looks for firms with high and low secondary shareholders once I demean on the time and company dimensions. I also include average market capitalization between 1990-1993 interacted with a post-Apartheid dummy in the robustness checks to allow for different time trends for firms of different size (table A7).

## 6 Results

### 6.1 BEE Transactions and Politicians

Notice that what I observe initially is the number of BEE transactions to black people or, more generally, to black companies. In the data these transactions usually go to Black Economic Empowerment firms and, to a lesser extent, to individuals. I collect information on the top executives of these Black Economic Empowerment companies and I look at their biographical information using the search engine *Who is Who in South Africa*. I then classify each of the recipients of BEE transactions as political or not. I find that a lower bound for the number of transactions going to politically connected companies or to politicians is 70%. This is a lower bound because I do not count as political the trade unions which, in many cases, are directed by politicians or associated with the ANC.

In Figure 3, I draw a network using as a starting point the politically connected Black Empowerment firms receiving share transfers from white companies in the period 1994-1998 and their on-board politicians. The network is then expanded by including all other companies of which these politicians are also directors. Black squares represent Black Economic Empowerment Firms, red squares represent white-owned firms in our sample, grey squares represent all other firms and black dots are politicians. A line connecting a politician to a company means that the politician is a director of that company. Figure 3 reveals that these politicians are connected to a large network of companies in South Africa. It also highlights that some empowerment companies have many politicians on their boards. Consider for example NAIL, which was one of the first BEE investment holding companies; in the network NAIL has 5 on-board politicians, these are:

Ramaphosa Secretary General of the ANC in 1991.

Motlana Secretary of the ANC Youth League during Apartheid. Medical doctor of Mandela.

Macozoma: Political Prisoner in Robben Island, member of parliament in 1994.

Moseneke: Political Prisoner in Robben Island, Deputy Justice of South Africa in 2002.

Sisulu: Son of Walter Sisulu.

Motsuenyane: Member of Parliament in 1994.

The point of this subsection of the paper is simple: most BEE transactions went to companies directed by politicians. These politicians are directors of many companies in South Africa, including 21 of the white owned firms which constitute the unit of analysis in my sample.

## **6.2 First Stages: Cumulative Number of BEE Transactions and Large Secondary Shareholders**

Figure 4 and 5 illustrate that the companies in the sample have a very concentrated shareholding structure. Figure 4 displays the kernel density of the first shareholder in 1993; figure 5 the kernel density of the second shareholder in 1993. Figure 5 shows that secondary shareholders can also be large blockholders but most of them do not have executive power (more than 25% of the vote according to the Companies Act of South Africa). A fraction of them however is close to obtain a sway in executive decisions.

The theoretical model suggests that, controlling for the shareholding of the largest shareholder of the company, the cumulative number of BEE transactions should depend negatively on the shareholding of the second largest shareholder. I estimate this relationship in table A3 using the shareholding of the second shareholder in 1993 interacted with a post-Apartheid dummy as the main independent variable. All regression tables except table 7 and table A4 include company and time fixed effects. In table A3, I find that the shareholding of the second shareholder but not the shareholding of the first shareholder (column (1)), nor the shareholding of the third, fourth or fifth shareholders (column (2)), is statistically significant and at the same time has a large negative effect on the cumulative number of BEE transactions. In table A3, column (3), I include quartile dummies for the secondary shareholding. I show that the relationship between BEE transactions and secondary ownership is non-linear and that the negative effect of the secondary shareholding arises from values of this variable in the top quartile of the cross-sectional distribution. Given this, and the reasons mentioned in section 2.5, a dummy which takes the value of one if the secondary shareholding is in the top quartile interacted with a post-Apartheid dummy becomes

my main instrument and the first stages using this instrument are presented in table 2.

Table 2 presents results of estimating equation [11], the first stage of the instrumental variables strategy. This table controls for an interaction between a post-Apartheid dummy and the shareholding of the largest shareholder in 1993 in all columns. Additionally, when the fraction of large secondary shareholders in the sector of company  $i$ , not including company  $i$ , is a right-hand side variable, we also control for the sector average shareholding of the owners of the companies (the largest shareholders), again not including company  $i$ . Column (1) presents the most parsimonious version of equation [11]: the cumulative number of BEE transactions against the large secondary shareholder dummy and the shareholding of the largest shareholder (both in 1993 and both interacted with post-Apartheid dummies). In that column  $\hat{\gamma} = -0.999$  with standard error of 0.306. This is a large effect (the mean of the cumulative number of BEE transactions is 0.79) implying that, after Apartheid, companies with large secondary shareholders make on average one less BEE transaction

Columns (2) and (3) of table 2 add the fraction of large secondary shareholders in the sector and, in the following order, the two measures of sector expropriability: the time varying cumulative number of world expropriated firms (*world sector expropriability*) -in levels and interacted with a post-Apartheid dummy- and the time invariant financial or mining dummy (interacted with a post-Apartheid dummy). From both columns it is apparent that companies in more vulnerable sectors get involved in more BEE transactions.

The reaction functions of the theoretical model suggest that an increase in the number of large secondary shareholders in the sector of company  $i$  decreases the sector-level share transfers to politicians and thus increases the share transfers of company  $i$ . In the data I do not see any relationship between the fraction of large secondary shareholders in the sector of company  $i$  and the cumulative number of BEE transactions of company  $i$ .

Columns (4) and (5) are identical to columns (2) and (3), respectively, except that the dependent variable is the sector average cumulative number of BEE transactions where the average is taken over all companies in the sector of company  $i$ , excluding company  $i$ . In both of these columns we can see that the fraction of large secondary shareholders in the sector reduces sector-level BEE transactions but that the large secondary shareholder dummy has no effect on sector-level BEE transactions. Going back to columns (2) and (3), where the dependent variable is the company-level cumulative number of

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BEE transactions, we find the opposite pattern: the large secondary shareholder dummy, but not the fraction of large secondary shareholders in the sector, negatively affects company-level BEE transactions. This nice separability is useful to distinguish between the company and sector-level effects of BEE transactions on investment.

### 6.3 The Cumulative Number of BEE Transactions as a Proxy for Share transfers

One concern with the main independent variable, the cumulative number of BEE transactions, is whether it is a good proxy for the transfer of shares to black people. In section 6.1 above, I document that these transactions go mainly to politicians. Here I show that the cumulative number of BEE transactions of company  $i$  up to 2003 is positively correlated with the shareholding of black people in company  $i$  in 2004.

In section 3, I discussed that after 2004, under Broad-Based Black Economic Empowerment, companies are scored in 7 different dimensions of empowerment. I collected information used to construct these scores for the top 200 BEE companies in 2004 (this information is not available before). The top 200 BEE companies are ranked based on their BEE performance (ownership by black people, fraction of black people in executive positions, fraction of black employees, etc.). These data come from Financial Mail. Specifically, I collected data on the ownership by black people (*ownership2004*) and on the fraction of black people occupying managerial positions (*managerial2004*). The ownership by black people is an upper bound of the actual shareholding of black people since the denominator excludes pension funds and state ownership. 80 of the firms in my sample rank in the top 200 companies. I input a value of zero to *ownership2004* and *managerial2004* if a firm in my sample is not in the top 200 empowerment companies. I believe this is a reasonable assumption because: (i) given my discussions with the Financial Mail' staff, firms which are not in the top 200 BEE companies are usually firms with bad economic empowerment credentials and (ii) it is not rational for a firm with good empowerment credentials to hide them since they are good advertisement and firms do not incur any costs by revealing them. The results in the next two paragraphs are qualitatively similar if I do no input missing values but I loose statistical significance.

In table A4 column (1), I regress the ownership by black people (*owner-*



*ship2004*) against the cumulative number of BEE transactions up to 2003. An increase in one BEE transaction by company  $i$  is associated with an increase of 0.44% in the ownership by black people in company  $i$ . Column (3) estimates the same regression but using as dependent variable the managerial positions occupied by black people (*managerial2004*). An increase in one BEE transaction up to 2003 is associated with an increase of 0.5 % in the percentage of managerial positions held by black individuals. This suggests that firms which transfer more shares to black people also hire more black people as directors and managers of their companies. This is consistent with figure 3 above.

Some interesting results come from regressing *ownership2004* and *managerial2004* against my main instrument, the large secondary shareholding dummy in 1993. This is done in column (2) for *ownership2004* and in column (4) for *managerial2004*. Column (2) shows that there is indeed a negative and significant relationship between the ownership of black people and the secondary shareholding dummy. Having a large secondary shareholder in 1993 reduces the ownership of black people by almost 4% but there is no relationship between the former variable and the percentage of managerial positions held by black people. This is supporting evidence of the secondary shareholding shifting the shares to black people, not other variables.

## 6.4 Long-term Investments

### 6.4.1 Main Results

Table 3 shows my main results. The structure of this table and table 5 is the same. Equation [10] is estimated by OLS in columns (1) to (3) and by IV in columns (4) to (6). The dependent variable in table 3 is long-term investment in billion Rands of 2000. Columns (1) and (4) include the least regressors: The cumulative number of BEE transactions and the interaction between the post-Apartheid dummy and the shareholding of the largest shareholder. The main prediction of the model, that investment is increasing in BEE transactions, is confirmed in both columns, however the OLS estimate is not significant at conventional levels. In column (4) the IV estimate is  $\hat{\beta}_{IV} = 3.61$  with standard error of 1.80. This estimate is 2.6 times larger than the OLS estimate, which confirms our conjecture on the downwards bias of the OLS estimate. The IV estimate implies that

an increase in one standard deviation in the cumulative number of BEE transactions (1.87 in the entire sample) generates an increase of about 6.74 billion rands of 2000 in long-term investments. This is a very large effect, representing about 2.5 times the long-term investments average (which is 2.70 billion rands). This effect seems even larger if we consider that the average value of a BEE transaction is 633 million rands of 2000 for those transactions for which a value is reported.

Columns (2) and (5) add the sector average cumulative number of BEE transactions, where the average does not include company  $i$ . This variable tests directly for positive externalities in the transfer of shares to politicians. In the IV regression this variable is instrumented using the fraction of large secondary shareholders in the sector of company  $i$ , where the fraction does not include company  $i$ . Columns (5) and (6) add sector expropriability as measured by the cumulative number of expropriated firms by sector and year in the world. Results are very similar if I use the financial or mining dummy and these results will be presented in table 4. The advantage of the former measure is that it has a very similar structure than the cumulative number of BEE transactions and thus act as a competing control; it also allows me to test for the level and post-Apartheid effects of sector expropriability.

I focus on column (6) for the rest of the discussion. Both the company level effect of cumulative BEE transactions and the sector level effect are positive and significant at less than the 5% level. Notice that beta coefficients are reported to evaluate the magnitude of the direct effect of BEE transactions against the positive-externality effect. The externality effect is about 1.4 times the direct effect. Quantitatively, the externality effect implies a 10 billion rands increase in long-term investment if the sector-average cumulative number of BEE transactions is increased by one standard deviation. Interestingly, sector expropriability negatively affects investment after, but not before Apartheid. The latter finding is consistent with the idea that the risk of expropriation increased in post-1994 South Africa.

### 6.4.2 Delisting of Companies

Recall that I am using a sample of continuously listed firms, which represent one fifth of all listed firms in 1993. This would go against my preceding results if firms which delist are also firms that transfer more shares to politicians and, in particular, if delisting entails less investment. To assess the extent of this problem I proceed in two steps. The first step is to collect data for

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all firms listed in 1993 and to compare firms in my sample with firms which delist at some point after 1993. This comparison is done in table A1. Not surprisingly, firms which delist are on average smaller, have less total assets and lower market capitalization, and are less profitable. Even if the standard deviations corresponding to these averages seem large, t-tests always reject the null of the difference of the means being equal to zero. In the two samples, the averages for the majority shareholding are very similar. The same is true for the secondary shareholding averages. For these two variables, t-tests on the means difference cannot reject the null at the 5% level. The second step consists of creating a delisting panel for the years 1993-1999 and to estimate the following model by OLS and IV:

$$D_{DELIST_{i,t}} = \phi \cdot s_{i,t-1} + \varphi_i + \varphi_t + v_{i,t} [12]$$

where  $D_{DELIST_{i,t}} = 1$  if company  $i$  delists in year  $t$ ,  $s_{i,t-1}$  is the cumulative number of BEE transactions up to  $t-1$  and  $\varphi_i$  and  $\varphi_t$  are fixed company and year effects. Results of this exercise are presented in table A2. Column (1) estimates the first stage for this time period and for this sample of firms. Here as-well, the interaction between the Post-Apartheid Dummy and the Large Secondary Shareholding Dummy negatively affects the cumulative number of BEE transactions. This interaction is significant at less than the 5% level. In column (2) I estimate equation [12] by OLS and in column (3) by IV. Column (2) points towards a negative, significant and quantitatively small association between the cumulative number of BEE transactions and the probability of delisting. Column (3) presents a larger negative effect but the estimate is highly non-significant. Columns (4) and (5) replace the delisting dummy with a dummy which takes the value of one if the company delists and liquidates, I call this a *failure dummy*. OLS results in column (4) imply a negative correlation between transferring shares and failing. Interestingly, in column (5) the parameter estimate on the cumulative number of BEE transactions becomes positive but the standard error is very large and the parameter cannot be differentiated from zero. In sum, giving a causal interpretation to the OLS results, more BEE transactions would imply a lower probability of delisting and the estimates on  $\hat{\beta}$  using the sample of continuously listed firms would be downwards biased. The IV results imply that the estimates on  $\hat{\beta}$  would not be affected by ignoring companies which delist.

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### 6.4.3 Robustness Checks

Here I perform robustness checks on the findings presented in table 3, that long-term investments are increasing in the cumulative number of BEE transactions both at the company and sector levels.

**i. Exclusion Restriction** As is always the case with instrumental variable estimates, one concern is that the exclusion restriction is not satisfied. In this paper the exclusion restriction is validated by the economic model but, in reality, one can always think about alternative stories such that the secondary shareholding in 1993 affects investment after 1993 through channels other than the transfer of shares to politicians. 1. One of the alternative stories is that larger secondary shareholders might imply a harder negotiation process inside of the firm and a delay in investment decisions. However, as was mentioned above, the Companies Acts of South Africa prescribes that only a shareholder with more than 25% plus one of the vote can interfere with executive decisions and in my sample only 6 firms cross that threshold. 2. Another alternative story is that sectors with higher capital requirements might need to issue more shares ending up with a more diluted ownership and larger secondary shareholders. This would play against my hypothesis but to check for this possibility I re-estimate equation [10] using sector X year and sub-sector X year fixed effects. The word sector refers to the six major sector defined in the data section (section 5), the word sub-sector refers to 22 smaller sub-sectors. I am reluctant to use the second definition of sector because companies in South Africa are very diversified within major sectors but I still show results using sub-sector X year fixed effects. Results are presented in table A6; they are very similar to those presented above: the cumulative number of BEE transactions has a positive and significant effect on long-term investments. Results using sub-sector fixed effects are weaker and the point estimate on the cumulative number of BEE transactions is smaller but still positive and close to significance. 3. One additional story is that firms with large majority shareholders are firms with better managers probably because large shareholders can better monitor directors. Table A7 adds a full battery of additional controls, including the number of experienced managers interacted with a post-Apartheid dummy. Experienced managers are managers who remained in power for the entire 1980-2006 period. Table A6 specifications are not my preferred specifications because they include variables such as average market capitalization which, even if predetermined,

is endogenous and highly persistent. However my main results hold using the additional controls (or each of those separately). Point estimates are larger which might be a consequence of the inclusion of endogenous controls.

An alternative check to the validity of the exclusion restriction is to find an additional instrument. I use an Afrikaner company dummy as a potentially exogenous variable which increases the share transfers to politicians. The idea is simple: Afrikaners ceded power to the ANC, they were closer to ANC politicians and Afrikaner firms might have benefited from this proximity. Table A8 estimates equation (10) by two stage least squares using as instruments the secondary shareholding dummy and a dummy equal to one if the company is an Afrikaner firm (both interacted with post-Apartheid dummies). We look at the history of all firms in our sample to classify them as Afrikaner firms. Most Afrikaner firms were also members of the Afrikaanse Handelinstituut except Altron and Shoprite. Thus a general simple rule to classify Afrikaner firms could be to consider firms which belonged to this institute, which was created in the 1940's to promote Afrikaner entrepreneurship and Afrikaner empowerment, but this would fail to classify Altron and Shoprite as Afrikaners. My results are the same if I drop the two latter firms to rely in a simple rule but I prefer to present results including them, that is, relying on the history of each single firm. Column (1) shows the first stage and confirms that the Afrikaner dummy positively affects the cumulative number of BEE transactions while the large secondary shareholder dummy negatively affects the cumulative number of BEE transactions. Columns (2), (3) and (4) estimate equation [10]. Column (2) includes the least regressors, the interaction between the post-Apartheid dummy and the shareholding of the first shareholder and the cumulative number of BEE transactions; column (2) adds the sector-level measure of this variables; finally, column (3) adds the number of world expropriated firms (in levels and interacted). Results are almost identical to those in table (3) and I cannot reject the joint null hypothesis that the instruments are valid, indeed the overidentification tests p-value are close to one in columns (2) and (4).

**ii. Alternative measures of the main independent variable** Table A9 replaces the *cumulative* number of BEE transactions with the number of BEE transactions. Results are qualitatively identical to those in table 3 and even more significant in all columns. Table A10 uses the cumulative real value of BEE transactions. Results are again qualitatively the same as those in table

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3; parameter estimates are somehow less significant but recall that the value of transactions is only available for 68% of transactions.

**iii. Pre-trends** Table A11 deals with pre-trends. I first estimate the reduced form of equation [10]. In other words, I regress long-term investments against an interaction between a post-apartheid dummy and the secondary shareholding dummy. This is done in column (1) where I find that the parameter estimate on the secondary shareholding dummy is  $-3.605$  with a standard error of  $1.632$ . In column (2) I add the fraction of secondary shareholders in the sector and, as expected, I find a negative and significant parameter estimate. Column (3) adds world sector expropriability in levels and time interacted; again both the secondary shareholding dummy and the fraction of secondary shareholders in the sector are associated with lower cumulative BEE transactions. Columns (4), (5) and (6) are equivalent to columns (1), (2) and (3), respectively, but they add interactions between time dummies for the years 1992 and 1993 and the secondary shareholding dummy and interactions between time dummies for the years 1992 and 1993 and the fraction of large secondary shareholders in the sector. Interestingly none of these interactions are significant and the point estimates for the interactions with the year 1992 are very close to zero and highly non significant, which lessens concerns about preexisting trends.

#### **6.4.4 Long-Term Investments - Interactions With Financial or Mining Dummy**

It is clear from our discussion in section 4 that the two major sectors for which expropriation is a threat in South Africa are mining and banking. These are also the two sectors where more firms are expropriated in our world expropriation data. Table A5, column (1), shows that bank and mining are the two sectors which involve in more BEE transactions. Also, table A4, column (2), shows that a mining or financial dummy positively affects the cumulative number of BEE transactions and is significant at the 10% level while all other sector dummies are separately and jointly non-significant.

Table 4 uses long-term investment as the dependent variable and takes into account the riskiness of being in the mining or financial sector. I present the IV results. Column (1) includes as regressors the cumulative number of BEE transactions at the company level and an interaction between the

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post-Apartheid dummy and the financial or mining dummy. There, it is shown that the parameter estimate on BEE transactions remains positive, significant and of similar magnitude to that in table 3. There is also a positive effect of the financial or mining dummy in long-term investments. Column (2) is analogous to column (1) but I interact the financial or mining dummy with the cumulative number of BEE transactions at the company level. I find that the positive effect of company-level BEE transactions found in the previous regressions arises exclusively through companies in the financial or mining sector, which is consistent with a theory where expropriation rather than other government goods are behind share transfers to politicians. Column (3) includes three main regressors: cumulative BEE transactions, the sector level measure of this variable and the financial or mining dummy. Both the direct and externalities effect of BEE transaction remain as in table 3, positive and significant; the financial or mining dummy becomes non-significant highlighting the fact that being in the mining or financial sector has not effect on investment once we allow for sector-level share transfers to politicians which might mitigate the negative effect of being in a highly expropriable sector. Column (4) shows that the externality effect is also only important for firms in the two sectors which are also the main targets of nationalization, the financial and mining sectors. Column (5) includes both the company and sector level effects and their corresponding interactions, simultaneously. Again, quantitatively, the positive company and sector-level effects of BEE transactions are explained by companies in the financial or mining sector but the interaction with the company-level cumulative number of BEE transactions is marginally significant and the interaction with the sector-level cumulative number of BEE transactions is non-significant.

## 6.5 Profits

Now I move forward to estimate equation [10] using after tax profits as the dependent variable in table 5. Both the OLS and IV results point towards a positive effect of BEE on profits with no evidence of sector-level externalities. Column (4), the most parsimonious IV regression, suggests that increasing the cumulative number of BEE transactions by one standard deviation increases annual profits by 580 million rand of 2000 or by 1.7 times the average after-tax profits. Why is there no evidence of sector-level positive externalities? One simple answer might be that the share transfers of firm  $i$  generate

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negative externalities to other firms in its same sector in dimensions other than investment. In Table B3, I try to see whether more BEE transactions at the sector level implies less sales for company  $i$ . This would make sense in post-2004 South Africa because, after 2003, firms that involve in more BEE are more likely to obtain government contracts and firms that buy goods from companies with high BEE scores increase in turn their BEE scores. However, as table B3 reveals, BEE transactions at the company level positively affect sales but BEE transactions at the sector level do not.

Table 6 replicates table 4 using after-tax profits as the dependent variable. For this variable, I find no differential effects for companies in the mining or financial sectors but the main effect of company-level BEE transactions remains positive and significant.

## 6.6 Transferring Shares to Create Political Connections?

One characteristic of the main independent variable is that it records BEE transactions to black agents, not necessarily to politicians. In section 6.1 I did show that most BEE transactions go to (or through) politicians. It is not uncommon that these political figures leave the political arena to become politically connected businessmen. In table 10 I ask how the cumulative number of BEE transactions up to 2003 maps into connections with active politicians. I do that by estimating a cross-section regression of the number of political connections of company  $i$  in 2006 against the total number of BEE transactions of company  $i$  up to 2003. To count the number of political connections of a firm in my sample, I use the disclosures of interests of members of parliament and members of the executive branch, which became mandatory in 2004. I count a politician as a political connection of firm  $i$  if the politician has ordinary shares in firm  $i$ . I am careful not to count as a political connection politicians with any other type of investment in that particular firm (unit trusts, pension funds, etc.). Figure 6 shows an example of a disclosure of interests for the provincial legislature. This is an interesting example because Patrick McKenzie is connected to 4 white-companies in our sample and to two of the first black economic empowerment companies.

Column (1) of table 7 shows the cross-section first stage, that is a regression of the number of BEE transactions up to 2003 against the shareholding of the secondary shareholder in 1993. This relationship is negative and significant as in the panel regressions. In all columns of table 10 I include the



following controls: the regional share of votes of the left; the shareholding of the largest shareholder; the sum of the shareholding of the third, fourth and fifth largest shareholders; the number of experienced directors in the company; average market capitalization between 1990 and 1993 -as a measure of firm size-; and the number of firms in the sector. Columns (2) and (3) show OLS results. I focus on those since columns (4) and (5), the corresponding IV, are almost identical. Column (2) shows that an additional BEE transaction by company  $i$  increases the number of active politicians connected to firm  $i$  by 0.565. However, as column (3) shows, all of this effect goes through companies in the mining or financial sectors.

## 7 Conclusion

Why are political connections observed more frequently in developing countries? Why a country like South Africa did not choose broad scale nationalization after the systemic social change brought up by the end of Apartheid? After all, left-leaning black politicians with no money but political power have at their reach one of the mines of the world. Indeed, these same politicians have promoted the nationalization of the mines and banks of the country for almost half a century.

This paper started from the observation that developing countries are also countries with weak property rights, where politicians can use their power to expropriate firms. Then the paper developed a game theory model to show that, when expropriation is a non-negligible threat, the owners of a company can transfer shares to politicians to tie the utility of politicians to the survival of the firm and to lower expropriation risk. Since expropriation usually takes place at the sector level, a company which transfers shares to politicians generates positive externalities for other companies in the same sector.

This theory is particularly insightful to understand the political economy of post-Apartheid South Africa where, under the policy framework of Black Economic Empowerment (BEE), white firms were encouraged to transfer equity to black people with the end result being the transfer of equity to black politicians. Focusing on the laissez-faire period of BEE, where equity transactions arose without active government intervention, I show that long term-investments increase in the number of BEE transactions both at the company

and sector levels and that these effects are only relevant for companies in the mining or financial sectors. More BEE transactions at the company level also imply higher after-tax profits but I do not find externalities or differential effects in the mining or financial sectors using this variable. Companies which historically engaged in more BEE transactions are also more likely to be connected to active politicians in 2006 and, here again, this effect is only relevant for companies in the mining or financial sectors.

This research is important for development because it highlights mechanisms to increase the security of property rights and investment in places where property rights are initially insecure. We know that institutions which protect citizens against expropriation are crucial for development but we also know that failing institutions are highly persistent (Acemoglu et al. [2001]). Understanding how property rights institutions are generated and how disempowered economic agents (in this case, white owned companies) interact with sub-optimal institutions is important to understand what avenues are available to reach better equilibria, where the interests of the politically powerful align with the interests of those with the means for economic growth. In this paper those interests are aligned through the stock market by sharing future economic profits with those with actual political power. Whether the set of property rights promoted by white-owned companies in South Africa benefits South Africans as a whole is a question this research cannot answer.

## Appendix A

Tables A1 to A11 are discussed in the text. These tables provide additional evidence to support my empirical strategy and robustness checks for my main results.

## Appendix B

Tables B1 to B3 replicate table 3 using other dependent variables which are not explicitly considered in the economic model. Results are discussed below.

## Table B1

Table B1 presents the results of estimating equation [10] using the number of employees (in hundreds) as the dependent variable. The point estimates for the main variable of interest, the cumulative number of BEE transactions, are negative but they are estimated very imprecisely and are always non-significant. One way of rationalizing this finding is to think about the hiring of labor as an intratemporal decision (and thus to assume that investment in human capital is not very important). In that case, if labor is included in the theoretical model above, its marginal product would not be weighed by the de facto shareholding of the owner. Because of that, a positive effect of the share transfers on labor would depend exclusively on labor and capital being good complements. However, in the South African case, complementarities between labor and capital after Apartheid seem to be low. Notice that columns (5) and (6) give very imprecise estimates. This is because just 73 of the firms in the sample report labor and in this sub-sample the first stage relationship between the fraction of secondary shareholders in the sector and the sector-level cumulative number of BEE transactions becomes non-significant and I am unable to estimate any externalities. I report these results for completeness.

## Table B2

Here I use sales to look at another outcome variable that might be affected by BEE. I expect firms with more secure property rights to sell more because they can expect to get the return on their inventory investment. There might be a negative externality effect if it is the case that the government is giving contracts to firms engaging in more BEE. However this should not be the case before 2004 if BEE was indeed laissez-faire. In table 8 I show that firms which involve in more BEE transactions actually sell more. According to column (6), sales increase by 3.6 billion per standard deviation increase in BEE transactions or 1.3 times average sales. There is however no evidence of externalities according to the instrumental variables results.

## Table B3

One concern with the results above is that we do not observe the probability of expropriation and that some of these results, in particular the direct effect of BEE transactions, are consistent with a theory of buying protection to avoid taxation. To check for this alternative channel, in table B3, I re-estimate equation [10] but now I use taxation as a fraction of before tax profits as the dependent variable. Table B3 shows that there is no relationship between the cumulative number of BEE transactions and the taxation rate. Columns (1) to (6) show a negative and quantitatively small point estimate which is not statistically different from zero.

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Table 1: Descriptive Statistics Before and After Apartheid in High and Low Secondary Shareholding Companies

Variable	Full sample	Low S2	High S2
Shareholding of Largest Shareholder in 1993	44.28 (19.54)	45.72 (20.83)	39.67 (13.74)
Shareholding of 2nd Largest Shareholder in 1993	12.77 (6.75)	9.58 (3.56)	22.92 (3.85)
Cum. Number of BEE Transactions 1971-1993	0.00 0.00	0.00 0.00	0.00 0.00
Cum. Number of BEE Transactions 1994-2003	0.79 (2.83)	0.99 (3.20)	0.16 (0.65)
Real Longterm Inv. (in Billion Rands) 1971-1993	1.28 (6.23)	1.64 (7.10)	0.12 (0.27)
Real Longterm Inv. (in Billion Rands)1994-2003	4.68 (20.32)	6.09 (23.15)	0.23 (0.80)
Real after Tax Profits (in Billion Rands) 1971-1993	0.27 (0.59)	0.33 (0.66)	0.08 (0.18)
Real after Tax Profits (in Billion Rands) 1994-2003	0.40 (1.04)	0.51 (1.17)	0.05 (0.17)
Observations	2,921	2,223	698

High S2: Firms with Secondary Shareholding in the top quartile. Standard Deviations in Parentheses

Table 2: First Stage: Cumulative Number of BEE Transactions and Large Secondary Shareholders.  
 Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Cumulative Number of BEE Transactions

VARIABLES	(1) Cumulative BEE Trans.	(2) Cumulative BEE Trans.	(3) Cumulative BEE Trans.	(4) Sector Cumulative BEE Trans.	(5) Sector Cumulative BEE Trans.
$d_t \geq 1994$ X Large Secondary Shareholder Dummy	-0.999 (0.307)	-1.056 (0.346)	-1.117 (0.368)	0.001 (0.050)	-0.056 (0.063)
$d_t \geq 1994$ X Fraction of Large Secondary Shareholders in Sector		-0.605 (1.820)	-0.326 (1.748)	-1.284 (0.480)	-1.034 (0.435)
World Sector Expropriability		-0.221 (0.206)		-0.178 (0.045)	
$d_t \geq 1994$ X World Sector Expropriability		0.305 (0.170)		0.330 (0.032)	
$d_t \geq 1994$ X Financial or Mining Dummy			0.905 (0.682)		0.803 (0.101)
Observations	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123
F-test on Large Secondary Shareholder Dummy	10.62	9.309	9.203		
F-test on Fraction of Large Secondary Shareholders in the Sector				7.140	5.646

Robust standard errors clustered at the company level in parentheses.

Large Secondary Shareholding Dummy equals 1 if shareholding of Second Largest Shareholder is in the top quartile

Controls not shown:  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the sector (not including company  $i$ ) in columns (2) to (5).

Table 3: Longterm Investments and Cumulative Number of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative BEE Transactions	1.38 (0.93)	1.34 (0.86)	1.34 (0.87)	3.61 (1.80)	3.81 (1.92)	3.97 (1.84)
Sector Average Cumulative BEE Transactions		6.34 (3.08)	6.32 (3.13)		15.08 (8.16)	15.05 (7.32)
World Sector Expropriability			-1.89 (0.86)			0.34 (0.61)
$d_t \geq 1994$ x World Sector Expropriability			-0.00 (0.45)			-3.72 (1.83)
Beta Cum. BEE Trans.	0.18	0.18	0.18	0.48	0.50	0.53
Beta Sector Average Cum. BEE Trans.		0.31	0.31		0.74	0.74
Observations	2,917	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123	123
Endogeneity Test				2.063	4.851	4.909
Endogeneity Test P-value				0.151	0.0884	0.0859
rk LM statistic				8.804	6.986	7.636
rk LM statistic P-Value				0.003	0.008	0.006

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Shareholders other than company  $i$  in the sector of company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6).

Table 4: Longterm Investments and Cumulative Number of BEE Transactions. Interactions With Financial or Mining Dummy.  
Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) IV	(2) IV	(3) IV	(4) IV	(5) IV
Cumulative BEE Transactions	4.17 (2.11)	0.37 (0.55)	3.59 (1.85)	3.73 (1.80)	0.59 (0.75)
Cum. BEE Trans. X Financial or Mining Dummy		5.51 (3.16)			4.56 (2.79)
Sector average Cumulative BEE Transactions			16.27 (9.94)	-1.35 (7.11)	2.49 (3.69)
Sector Average Cum. BEE Trans. X Financial or Mining Dummy				14.95 (10.66)	10.54 (9.03)
$d_t \geq 1994$ X Financial or Mining Dummy	3.62 (1.90)	-0.57 (0.55)	-4.14 (6.28)	-11.88 (9.20)	-12.99 (9.86)
Observations	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123
Endogeneity Test	2.675	3.226	4.489	5.105	5.633
Endogeneity Test P-value	0.102	0.199	0.106	0.164	0.228
rk LM statistic	7.842	8.693	3.142	1.655	1.841
rk LM statistic P-Value	0.00510	0.00319	0.0763	0.198	0.175

Robust standard errors clustered at the company level in parentheses. Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (3), (4), (7) and (8).

Table 5: Profits and Cumulative Number of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is After-Tax Profits in Billion Rands of 2000.

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative BEE Transactions	0.042 (0.021)	0.040 (0.021)	0.040 (0.021)	0.306 (0.109)	0.311 (0.112)	0.312 (0.113)
Sector Average Cumulative BEE Transactions		0.100 (0.085)	0.096 (0.088)		0.012 (0.451)	0.031 (0.451)
World Sector Expropriability			0.148 (0.107)			0.189 (0.107)
$d_t \geq 1994$ x World Sector Expropriability			0.013 (0.026)			-0.053 (0.117)
Observations	2,917	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123	123
Endogeneity Test				8.480	9.243	9.125
Endogeneity Test P-value				0.004	0.010	0.010
rk LM statistic				8.804	6.986	7.636
rk LM statistic P-Value				0.003	0.008	0.006

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Shareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)

Table 6: After Tax Profits and Cumulative Number of BEE Transactions. Interactions With Financial or Mining Dummy.  
 Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is After Tax Profits in Billion Rands of 2000

VARIABLES	(1) IV	(2) IV	(3) IV	(4) IV	(5) IV
Cumulative BEE Transactions	0.32 (0.11)	0.25 (0.15)	0.32 (0.12)	0.32 (0.12)	0.24 (0.16)
Cum. BEE Trans. X Financial or Mining Dummy		0.09 (0.21)			0.11 (0.23)
Sector average Cumulative BEE Transactions			-0.01 (0.55)	-0.53 (0.75)	-0.44 (0.55)
Sector Average Cum. BEE Trans. X Financial or Mining Dummy				0.44 (0.97)	0.33 (0.82)
$d_t \geq 1994$ X Financial or Mining Dummy	0.06 (0.14)	-0.01 (0.06)	0.08 (0.39)	-0.15 (0.88)	-0.18 (0.80)
Observations	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123
Endogeneity Test	9.394	10.90	9.788	10.32	12.00
Endogeneity Test P-value	0.00218	0.00430	0.00749	0.0160	0.0174
rk LM statistic	7.842	8.693	3.142	1.655	1.841
rk LM statistic P-Value	0.00510	0.00319	0.0763	0.198	0.175

Robust standard errors clustered at the company level in parentheses. Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (3), (4), (7) and (8).

Table 7: Political Connections and Cumulative Number of BEE Transactions  
Cross-Section Regression

	(1) Number of BEE Trans. up to 2003 OLS	(2) Number of Political Connections OLS	(3) Number of Political Connections OLS	(4) Number of Political Connections IV	(5) Number of Political Connections IV
Large Secondary Shareholder Dummy	-1.9294 (0.6265)				
BEE Transactions up to 2003		0.565 (0.241)	0.102 (0.056)	0.410 (0.161)	0.093 (0.154)
Number of BEE Transactions up to 2003 X Financial or Mining Dummy			0.514 (0.271)		0.469 (0.266)
Financial or Mining Dummy			-0.111 (0.337)		0.052 (0.178)
Large Secondary Shareholder Dummy	-1.9294 (0.6265)				
Observations	108	108	108	108	108
F-test on Large Secondary Shareholder Dummy	9.484				
Endogeneity Test				1.061	0.274
Endogeneity Test P-value				0.303	0.872
rk LM statistic				0.297	0.846
rk LM statistic P-Value				0.586	0.358

Robust standard errors in parentheses. Regression include the following Controls: The shareholding of the largest shareholder, the sum of the 3d, 4th and 5th largest shareholders, the number of experienced director of the company, average market capitalization between 1990 and 1993, and the number of firms in the sector.

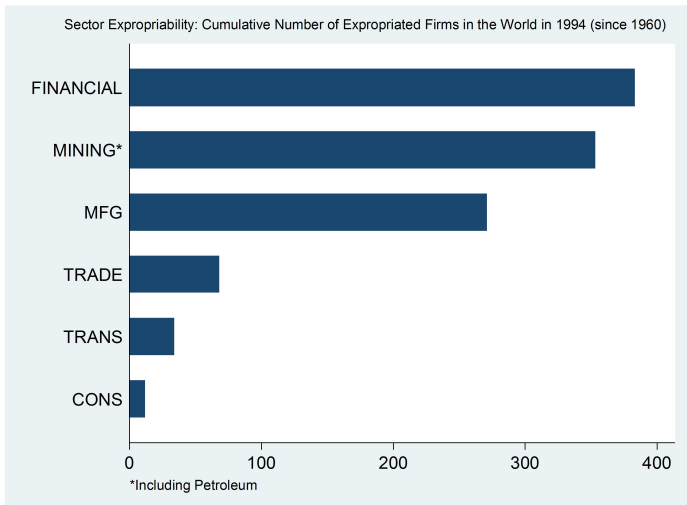


Figure 1: Sector Expropriability: Cumulative Number of World Expropriated Firms



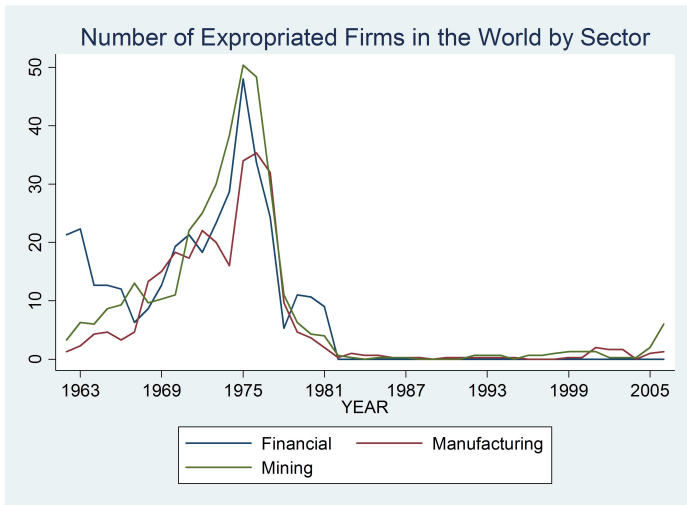


Figure 2: Sector Expropriability: Number of World Expropriated Firms over Time

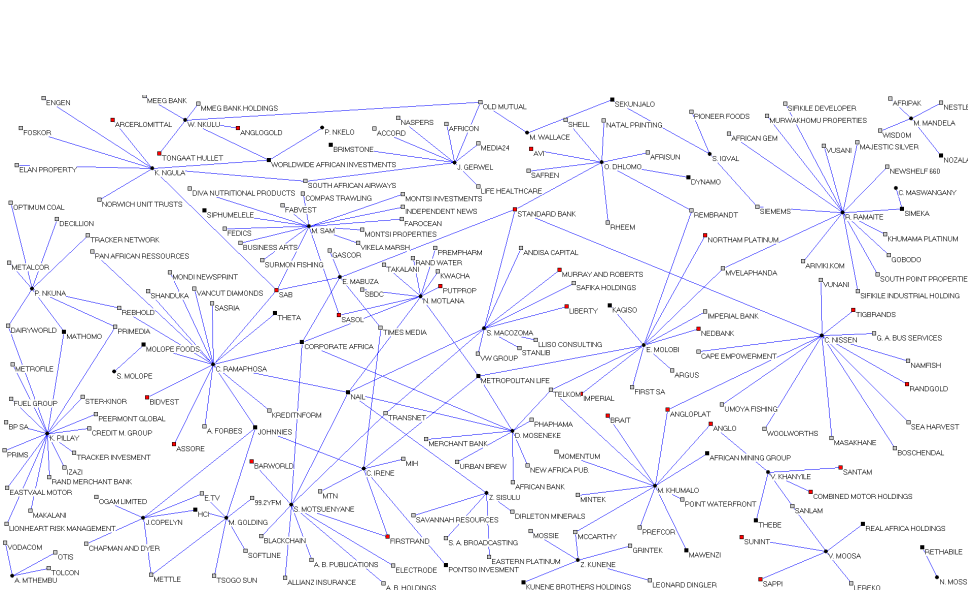


Figure 3: Directorships of Politicians in BEE Firms in 1994-1998

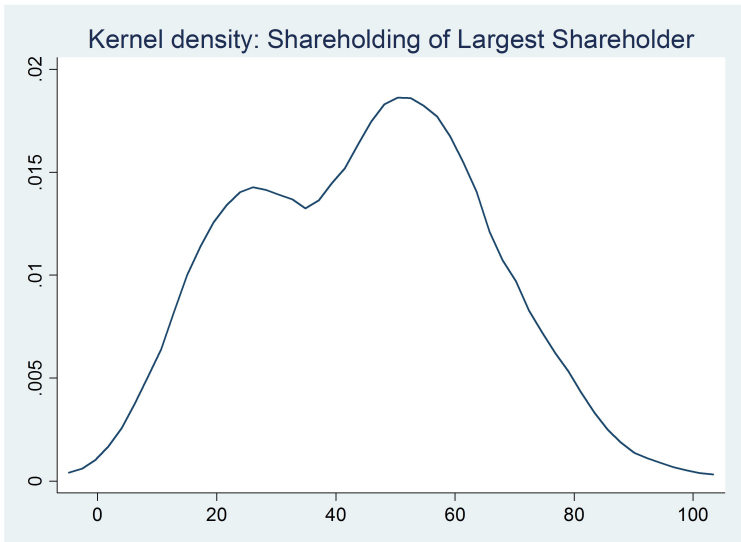


Figure 4: Shareholding of the First Largest Shareholder in 1993

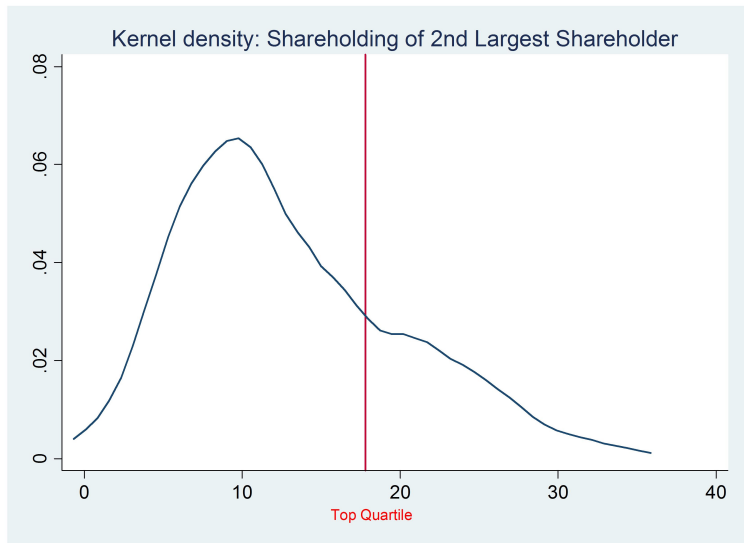


Figure 4: Shareholding of the Second Largest Shareholder in 1993

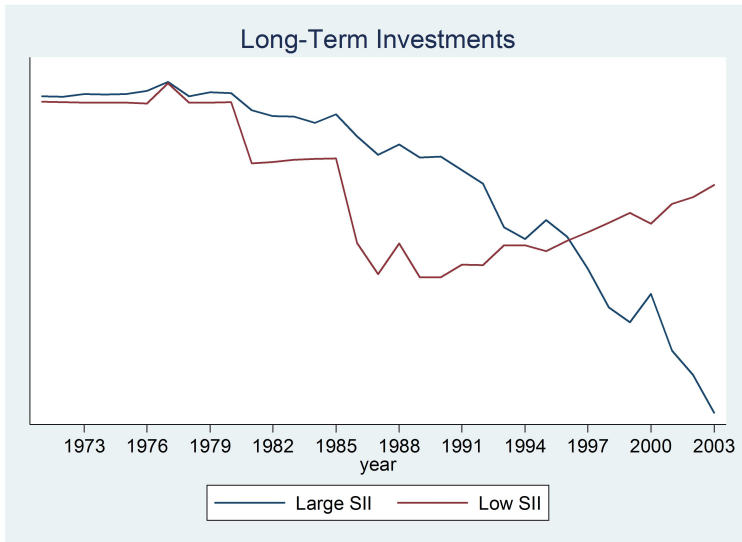


Figure 5: Year and Company Demeaned Longterm Investments



PART A

PUBLIC DISCLOSURE SECTION

Name of Member: Patrick Mckenzie

Signature: [Handwritten Signature]

Date: 24/7/06

1. Shareholding and other financial interests in companies and corporate entities

Paragraph 14(1) of the Code

NAME OF COMPANY	NUMBER OF SHARES	NATURE	NOMINAL VALUE	NATURE AND VALUE OF OTHER FINANCIAL INTERESTS
Shopte	401	Ordinary	± R1,17 per share	
Solan	937	"	± R16,40 " "	
Israt	256	"	± R23,93 " "	
Old Mutual	1000	"	± R19,96 per share	
Schumi	33	"	± R9,65 " "	
Wtas	104	"	± R54,20 " "	

Figure 6: Declaration of Interests of a Member of Western Cape Parliament (2006)

Table A1: Companies in 1993

Variable	Companies Continuously Listed	Companies that Delist
Shareholding of Largest Shareholder	44.65 (19.55)	48.30 (19.94)
Shareholding of 2nd Largest Shareholder	13.00 (6.89)	14.62 (8.82)
Total Assets	4.62 (14.37)	0.97 (4.28)
Profits after Interest and Taxes	0.17 (0.54)	0.07 (0.34)
Market Capitalization	2.27 (5.49)	0.86 (2.71)
Observations	123	522

Standard Deviations in Parentheses. Values in Billion Rands.

Table A2: Delisting and Cumulative Number of BEE Transactions. Panel-Data 1993-1999 with Fixed Company and Year Effects

VARIABLES	(1)	(2)	(3)	(4)	(5)
	First Stage Cum. Number of BEE Trans.	OLS Delisting Dummy	IV Delisting Dummy	OLS Failure Dummy	IV Failure Dummy
$d_t \geq 1994$ X Large Secondary Shareholder Dummy	-0.19812 (0.07271)				
Cumulative Number of BEE Transactions		-0.00728 (0.00138)	-0.10312 (0.09423)	-0.00125 (0.00046)	0.01682 (0.03176)
$d_t \geq 1994$ X Shareholding of Largest Shareholder	-0.00536 (0.00276)	0.00051 (0.00039)	0.00007 (0.00055)	0.00000 (0.00018)	0.00009 (0.00021)
d1994	0.30451 (0.14610)	0.01964 (0.01984)	0.04058 (0.02654)	0.00798 (0.00940)	0.00403 (0.00957)
d1995	0.34347 (0.15342)	0.01501 (0.01910)	0.03967 (0.02975)	0.00567 (0.00897)	0.00102 (0.01093)
d1996	0.40879 (0.17387)	0.05082 (0.02053)	0.08180 (0.03504)	0.01498 (0.00945)	0.00914 (0.01257)
d1997	0.50945 (0.19089)	0.07638 (0.02083)	0.11705 (0.04154)	0.01458 (0.00898)	0.00691 (0.01439)
d1998	0.62690 (0.20672)	0.12964 (0.02299)	0.18156 (0.05156)	0.03398 (0.01158)	0.02419 (0.01806)
d1999	0.84795 (0.24583)	0.10558 (0.02184)	0.17866 (0.06923)	0.02195 (0.01038)	0.00817 (0.02427)
Observations	3,968	3,968	3,938	3,968	3,938
Number of Companies	646	646	616	646	616
F-test on Instrument	7.424				
Endogeneity Test			1.252		0.337
Endogeneity Test P-value			0.263		0.561
rk LM statistic			7.264		7.264
rk LM statistic P-Value			0.00704		0.00704

Robust standard errors clustered at the company level in parentheses. 208 firms exit between 1993 and 1999.

Failure Dummy equals 1 if the firms delists and liquidates. 45 companies fail.



Table A3: Cumulative Number of BEE Transactions and Shareholding Structure. Panel-Data 1971-2003 with Fixed Company and Year Effects.  
 Dependent Variable is Cumulative Number of BEE Transactions

$d_{t \geq 1994} X$	(1)	(2)	(3)	(4)
Shareholding of Largest Shareholder	-0.0156 (0.0133)	-0.0188 (0.0181)	-0.0197 (0.0139)	-0.0124 (0.0126)
Shareholding of 2nd Largest Shareholder	-0.0804 (0.0312)	-0.0741 (0.0276)		
Shareholding of 3d Largest Shareholder		-0.0413 (0.0678)		
Shareholding of 4th Largest Shareholder		0.0273 (0.0589)		
Shareholding of 5th Largest Shareholder		-0.0290 (0.0937)		
Dummy if Shareholding of 2nd Largest Shareholder is Above the 25th Percentile			-0.760 (0.653)	
Dummy if Shareholding of 2nd Largest Shareholder is Above the 50th Percentile			-0.265 (0.562)	
Dummy if Shareholding of 2nd Largest Shareholder is Above the 62.5th Percentile				-0.447 (0.457)
Dummy if Shareholding of 2nd Largest Shareholder is Above the 75th Percentile			-0.639 (0.294)	-0.655 (0.355)
Dummy if Shareholding of 2nd Largest Shareholder is Above the 87.5th Percentile				0.0732 (0.153)
Observations	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123

Robust Standard Errors Clustered at the Company Level in Parentheses

Table A4: Percentage Ownership and Percentage Managerial Positions held by Black People and Cumulative Number of BEE Transactions in 2003  
Cross-Section Regression

VARIABLES	(1) Ownership2004	(2) Ownership2004	(3) Managerial2004	(4) Managerial2004
BEE Transactions up to 2003	0.4415 (0.2216)		0.503 (0.307)	
Large Secondary Shareholder Dummy		-3.742 (2.232)		-2.110 (3.181)
Shareholding of Biggest Shareholder		0.091 (0.069)		0.049 (0.066)
Observations	108	108	108	108

Robust standard errors in parentheses. Regression include the following Controls: The shareholding of the largest shareholder, the sum of the 3d, 4th and 5th largest shareholders, the number of experienced director of the company, average market capitalization between 1990 and 1993, and the number of firms in the sector.

Table A5: Cumulative Number of BEE Transactions and Sector Dummies.

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Cumulative Number of BEE Transactions

VARIABLES	(1)	(2)
$d_t \geq 1994$ X Shareholding of Largest Shareholder	-0.01084 (0.01160)	-0.01039 (0.01191)
$d_t \geq 1994$ X Large Secondary Shareholder Dummy	-1.08289 (0.39838)	-1.14328 (0.38090)
$d_t \geq 1994$ X Financial or Mining Sector		0.82330 (0.46211)
$d_t \geq 1994$ X Financial Sector	1.18330 (0.75881)	
$d_t \geq 1994$ X Mining Sector	0.55097 (0.56295)	
$d_t \geq 1994$ X Manufacturing Sector	0.20234 (0.23902)	0.18964 (0.25076)
$d_t \geq 1994$ X Construction Sector	-0.00328 (0.37898)	-0.00840 (0.40094)
$d_t \geq 1994$ X Trade Sector	-0.39134 (0.31843)	-0.42149 (0.32892)
Observations	2,917	2,917
Number of Companies	123	123
F-test on Joint Significance of Sectors other than Financial and Mining		1.256

Robust standard errors clustered at the company level in parentheses. Omitted sector is Transportation

Large Secondary Shareholding Dummy equals 1 if shareholding of Second Largest Shareholder is in the top quartile

Table A6: Longterm Investments and Cumulative Number of BEE Transactions. Adding Year X Sector/Sub-Sector Fixed Effects Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative Number of BEE Transactions	1.3785 (0.9312)	1.0845 (0.8389)	0.8358 (0.5888)	3.6102 (1.8016)	3.1668 (1.7256)	2.4572 (1.6161)
Additional Fixed Effects	NO	Sector	Sub-Sector	No	Sector	Sub-Sector
Observations	2,917	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123	123
Endogeneity Test				2.063	1.887	1.263
Endogeneity Test P-value				0.151	0.170	0.261

Robust standard errors clustered at the company level in parentheses. All columns control for the Shareholding of the First Shareholder (interacted with post-Apartheid dummy)

Table A7: Longterm Investments and Cumulative Number of BEE Transactions. Additional Controls  
 Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative Number of BEE Transactions	1.36 (0.93)	1.33 (0.87)	1.29 (0.88)	4.71 (2.45)	4.45 (2.50)	4.65 (2.32)
Average Sector Level Cumulative Number of BEE Transactions		6.54 (3.23)	5.69 (3.02)		15.68 (9.02)	18.12 (9.98)
Sector Expropriability			-1.39 (0.62)			0.81 (0.86)
$d_t \geq 1994$ x Sector Expropriability			1.99 (1.12)			-5.66 (4.10)
Observations	2,616	2,616	2,616	2,616	2,616	2,616
Number of Companies	109	109	109	109	109	109
Endogeneity Test				2.308	5.353	4.880
Endogeneity Test P-value				0.129	0.069	0.087
rk LM statistic				9.277	2.457	2.457
rk LM statistic P-Value				0.00	0.117	0.117

Robust standard errors clustered at the company level in parentheses. Controls are the following variables interacted with post-Apartheid Dummies: Shareholding of Largest Shareholder, the sum of the 3d, 4th and 5th largest shareholders, the regional vote share of the left, the number of experienced director of the company, average market capitalization between 1990 and 1993 and the number of firms in the sector (in all columns); and the Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6).

Table A8: Longterm Investments and Cumulative Number of BEE Transactions. Additional Instruments.  
 Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) OLS / First Stage Cum. Number of BEE Trans.	(2) 2SLS Long-term Investments	(3) 2SLS Long-term Investments	(4) 2SLS Long-term Investments
$d_t \geq 1994$ X Large Secondary Shareholder Dummy	-0.62 (0.30)			
$d_t \geq 1994$ X Afrikaner Company Dummy	2.07 (0.88)			
Cum. Number of BEE Transactions		3.72 (1.82)	3.56 (1.62)	3.71 (1.61)
Average Sector Cum. Number of BEE Transactions			10.52 (5.22)	15.18 (7.16)
Sector Expropriability				0.32 (0.57)
$d_t \geq 1994$ x Sector Expropriability				-3.68 (1.67)
Observations	2,921	2,917	2,917	2,917
Number of Companies	123	123	123	123
F-test on Instruments	6.622			
Overidentification Test		0.003	1.731	0.0300
Overidentification Test P-value		0.955	0.421	0.985
Endogeneity Test		3.362	2.762	6.189
Endogeneity Test P-value		0.067	0.251	0.045
rk LM statistic		10.40	10.66	10.78
rk LM statistic P-Value		0.005	0.014	0.013

Robust standard errors clustered at the company level in parentheses. Instruments are Large Secondary Shareholder dummy and the Fraction of Large Secondary Shareholders other than company  $i$  in the sector of Company  $i$ ; Afrikaner Company Dummy and the Fraction of Afrikaner firms (not including company  $i$ ) in the sector of Company  $i$ ; all interacted with Post-Apartheid Dummies. Afrikaner firms are members of the afrikaanse handelsinstituut + Bill Venter's ALTRON and Chris Wiese's SHOPRITE. Controls are:  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (3) and (4)

Table A9: Longterm Investments and Number of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
BEE Transactions	2.76 (1.38)	2.63 (1.32)	2.56 (1.30)	16.18 (7.98)	18.83 (9.81)	19.80 (9.29)
Sector Average BEE Transactions		14.88 (6.67)	13.15 (6.10)		79.68 (43.62)	79.85 (38.70)
World Sector Expropriability			-2.78 (1.33)			0.50 (0.77)
$d_t \geq 1994$ x World Sector Expropriability			1.33 (0.66)			-4.96 (2.45)
Observations	2,917	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123	123
Endogeneity Test				4.003	5.292	5.307
Endogeneity Test P-value				0.0454	0.0710	0.0704
rk LM statistic				8.798	6.666	9.400
rk LM statistic P-Value				0.003	0.010	0.002

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Shareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)

Table A10: Longterm Investments and Cumulative Real Value of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative Value of BEE Transactions	0.0028 (0.0024)	0.0021 (0.0022)	0.0021 (0.0022)	0.0096 (0.0056)	0.0095 (0.0065)	0.0099 (0.0062)
Sector Average Cumulative Value of BEE Transactions		0.0180 (0.0082)	0.0175 (0.0082)		0.0480 (0.0294)	0.0482 (0.0292)
Sector Expropriability			-1.9251 (0.8785)			0.8105 (1.3500)
$d_t \geq 1994$ x Sector Expropriability			0.3359 (0.4839)			-3.8870 (2.5462)
Observations	2,917	2,917	2,917	2,917	2,917	2,917
Number of Companies	123	123	123	123	123	123
Endogeneity Test				2.646	5.191	5.138
Endogeneity Test P-value				0.104	0.0746	0.0766
rk LM statistic				4.741	5.854	6.252
rk LM statistic P-Value				0.0294	0.0155	0.0124

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Shareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)



Table A11: Reduced Form Regressions and Pre-trends. Longterm Investments and Secondary Shareholders.  
 Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Longterm Investment in Billion Rands of 2000

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
$d_t \geq 1992$ X Shareholding of Largest Shareholder				-0.0023 (0.4831)	-0.0246 (0.5050)	0.2026 (0.4680)
$d_t \geq 1993$ X Shareholding of Largest Shareholder				-1.2784 (0.8267)	-1.2874 (0.8393)	-1.3188 (0.8428)
$d_t \geq 1994$ X Shareholding of Largest Shareholder	-3.6055 (1.6320)	-4.2529 (1.9215)	-4.1726 (1.8593)	-1.9899 (1.2646)	-2.5323 (1.4483)	-2.6364 (1.4713)
$d_t \geq 1992$ x Fraction of Large Secondary Shareholders in the Sector					0.5189 (2.0875)	0.3818 (1.9896)
$d_t \geq 1993$ x Fraction of Large Secondary Shareholders in the Sector					-1.7855 (1.8147)	-1.8833 (1.8183)
$d_t \geq 1994$ x Fraction of Large Secondary Shareholders in the Sector		-22.1546 (13.1417)	-21.7240 (12.8633)		-17.3690 (9.8104)	-16.6452 (9.7261)
Sector Expropriability			-3.2149 (1.5193)			-2.0138 (0.9433)
$d_t \geq 1994$ x Sector Expropriability			2.4565 (1.1010)			2.0768 (0.8973)
Observations	2,917	2,917	2,917	2,621	2,621	2,621
Number of Companies	123	123	123	123	123	123

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Shareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)

Table B1: Number of Employees and Cumulative Number of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Number of Employees in Hundreds.

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative BEE Transactions	-2.41 (4.78)	-3.40 (5.13)	-3.92 (5.19)	-8.49 (32.44)	89.19 (76.86)	-139.47 (306.78)
Sector Average Cumulative BEE Transactions		28.12 (25.31)	34.10 (24.12)		-534.59 (555.97)	1,953.51 (3,710.43)
World Sector Expropriability			-351.42 (139.27)			-81.90 (488.67)
$d_t \geq 1994$ x World Sector Expropriability			-9.87 (9.44)			-392.64 (725.55)
Observations	1,483	1,483	1,483	1,483	1,483	1,483
Number of Companies	76	76	76	76	76	76
Endogeneity Test				0.0379	4.527	4.154
Endogeneity Test P-value				0.846	0.104	0.125
rk LM statistic				5.533	1.188	0.288
rk LM statistic P-Value				0.019	0.276	0.592

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Sareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)

Table B2: Sales and Cumulative Number of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable are Sales in Billion Rands of 2000.

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative BEE Transactions	0.276 (0.182)	0.275 (0.169)	0.273 (0.169)	1.856 (0.679)	1.808 (0.667)	1.818 (0.678)
Sector Average Cumulative BEE Transactions		-0.646 (0.344)	-0.707 (0.369)		-0.333 (2.801)	-0.335 (2.699)
World Sector Expropriability			-0.030 (0.917)			0.358 (0.885)
dt>1994 x World Sector Expropriability			0.134 (0.263)			-0.454 (0.886)
Observations	2,735	2,735	2,735	2,735	2,735	2,735
Number of Companies	116	116	116	116	116	116
Endogeneity Test				6.533	7.141	7.104
Endogeneity Test P-value				0.010	0.028	0.029
rk LM statistic				8.505	8.508	8.604
rk LM statistic P-Value				0.003	0.003	0.003

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Sareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)

Table B3: Taxation and Cumulative Number of BEE Transactions

Panel-Data 1971-2003 with Fixed Company and Year Effects. Dependent Variable is Taxation as a Fraction of Before Tax Profits.

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Cumulative BEE Transactions	0.269 (0.505)	0.162 (0.620)	0.148 (0.619)	-1.825 (3.630)	-1.304 (3.600)	-1.254 (3.623)
Sector Average Cumulative BEE Transactions		11.244 (5.726)	10.726 (6.306)		21.405 (20.603)	21.783 (20.493)
World Sector Expropriability			4.268 (6.533)			5.897 (7.518)
dt>1994 x World Sector Expropriability			1.166 (2.907)			-1.976 (5.327)
Observations	2,540	2,540	2,540	2,540	2,540	2,540
Number of Companies	110	110	110	110	110	110
Endogeneity Test				0.312	0.474	0.548
Endogeneity Test P-value				0.577	0.789	0.761
rk LM statistic				8.237	7.219	10.09
rk LM statistic P-Value				0.00411	0.00722	0.00149

Robust standard errors clustered at the company level in parentheses. Instruments are  $d_t \geq 1994$  X Large Secondary Shareholder Dummy and  $d_t \geq 1994$  X Fraction of Large Secondary Sareholders other than company  $i$  in the sector of Company  $i$ . Controls not shown are  $d_t \geq 1994$  X Shareholding of Largest Shareholder in all columns and  $d_t \geq 1994$  X Average Shareholding of Largest Shareholders in the Sector (not including company  $i$ ) in columns (2), (3), (5) and (6)